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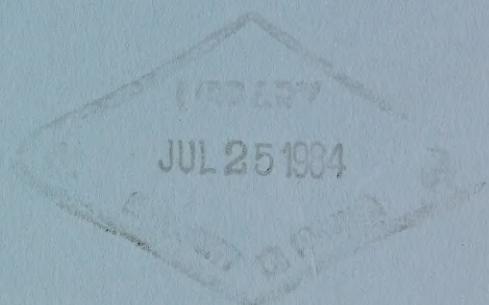


NATIONAL ENERGY BOARD  
REASONS FOR DECISION

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In the Matter of the Application Under  
Part IV of the National Energy Board Act  
(Tolls Application)

of



TRANSCANADA PIPELINES LIMITED

July 1984



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Government  
Publication

National Energy Board  
Reasons for Decision

TransCanada PipeLines Limited  
GH-2-87

Page 2

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Add the word "in" before the expression "item a)".

Pages 109, 110, 112

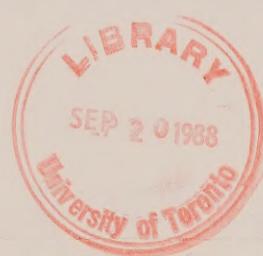
Appendices IV, V and VI, subsection 2(1)

Add the word "conditions" after the word "these".

Page 59

Right-hand column, Section 7.1.2, first paragraph, line 7.

Insert page number 60.





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NATIONAL ENERGY BOARD

REASONS FOR DECISION

In the Matter of the Application Under  
Part IV of the National Energy Board Act  
(Tolls Application)

OF

TRANSCANADA PIPELINES LIMITED

July 1984

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## RECITAL AND APPEARANCES

IN THE MATTER OF the National Energy Board Act  
and the Regulations made thereunder, and

IN THE MATTER OF an application by TransCanada  
PipeLines Limited for certain orders respecting  
tolls under Sections 50, 51 and 53 of the  
National Energy Board Act, filed with the Board  
under File No. 1562-T1-18.

HEARD at Ottawa, Ontario on:

16, 17, 18, 19, 24, 25, 26, 27 and 30 April 1984,  
and 1, 2, 3, 4, 14, 15, 16, 22, 23 and 24 May  
1984.

BEFORE:

Mr. R.B. Horner, Q.C.	Presiding Member
Mr. J.R. Jenkins	Member
Mr. W.G. Stewart	Member

APPEARANCES:

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C.C. Black	)	
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B.A. Carroll	)	Industrial Gas Users Association
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S.F. McAllister	)	
W.M. Smith	)	Dome Petroleum Limited
J. Hopwood, Q.C.	)	Foothills Pipe Lines (Yukon) Ltd.
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R.P. Meunier	)	Gaz Métropolitain, inc.
A.L. Campbell	)	Greater Winnipeg Gas Company
A.R. O'Brien	)	Interprovincial Pipe Line Limited



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T.M. Hughes	)	
P.F. Scully	)	Northern and Central Gas Corporation Ltd.
F. Kelton	)	
J. Hopwood, Q.C.	)	NOVA, An Alberta Corporation
K.F. Keeler	)	Pan-Alberta Gas Limited
J. Hobbs	)	Saskatchewan Power Corporation
M.M. Peterson	)	Suncor Inc.
J.H. Farrell	)	The Consumers' Gas Company Ltd.
L.A. Leclerc	)	Trans Québec & Maritimes Pipeline Inc.
P.G. Gilchrist	)	Union Gas Limited
A. Hollingworth	)	Alberta Petroleum Marketing Commission
H. Brown	)	British Columbia Petroleum Corporation
N.D. Shende	)	Minister of Energy and Mines for the Province of Manitoba
E. Smith	)	Minister of Energy for Ontario
J. Giroux	)	le Procureur général du Québec
A.R. Macdonald	)	Board Counsel
P.G. Rogers		

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- VII   Functional Distribution and Classification of Authorized Cost of Service

ABBREVIATIONS

ABP	- Alberta Border Price
ACQ	- Annual Contract Quantity
AFUDC	- Allowance for Funds Used During Construction
ANR	- ANR Pipeline Company
AOI	- Authorized Overrun Interruptible
APMC	- Alberta Petroleum Marketing Commission
Applicant	- TransCanada PipeLines Limited
Board	- National Energy Board
Boundary Gas	- Boundary Gas Inc.
CCA	- Capital Cost Allowance
C-I-L	- C-I-L Inc.
CD	- Contract Demand
CD-100	- Unit Transportation Toll for CD Service Based on 100 Percent Load Factor
COSC	- Canadian Ownership Special Charge
CPA	- Canadian Petroleum Association
CPI	- Consumer Price Index
Consolidated	- Consolidated Natural Gas Limited
Consumers'	- The Consumers' Gas Company Ltd.
DCF	- Discounted Cash Flow
Dome	- Dome Petroleum Limited
EAA	- Energy Administration Act
FDPS	- First Date Placed in Service
FERC	- Federal Energy Regulatory Commission
GICQ	- Gaz Inter-Cité Québec Inc.
GMi	- Gaz Métropolitain, inc.

GJ	- Gigajoule ( $10^9$ joules)
GLGT, Great Lakes	- Great Lakes Gas Transmission Company
IRR	- Investors' Required Rate of Return
Manitoba	- Minister of Energy and Mines for the Province of Manitoba
Midwestern	- Midwestern Gas Transmission Company
$10^6 \text{m}^3$	- Million Cubic Metres
N&C	- Northern and Central Gas Corporation Ltd.
NEB	- National Energy Board
NEB Act	- National Energy Board Act
NOVA	- NOVA, An Alberta Corporation
Ontario	- Minister of Energy for Ontario
Pan-Alberta	- Pan-Alberta Gas Ltd.
ProGas	- ProGas Limited
PS	- Peaking Service
Québec	- le Procureur général du Québec
R/L	- Remaining Life
RPI	- Reserves to Production Index
SGS	- Small General Service
SPC	- Saskatchewan Power Corporation
STS	- Storage Transportation Service
Sulpetro	- Sulpetro Limited
TCPL, TransCanada	- TransCanada PipeLines Limited
$10^3 \text{m}^3$	- Thousand Cubic Metres
TQM	- Trans Québec & Maritimes Pipeline Inc.
TWS	- Temporary Winter Service
Union	- Union Gas Limited
VRIP	- Volume Related Incentive Price

August 1980 TCPL Reasons for Decision	- "National Energy Board Reasons for Decision in the Matter of the Application Under Part IV of the National Energy Board Act (Rate Application) of TransCanada PipeLines Limited - August 1980"
July 1982 TCPL Reasons for Decision	- "National Energy Board Reasons for Decision in the Matter of the Application Under Part IV of the National Energy Board Act (Tolls Application) of TransCanada PipeLines - July 1982"
June 1983 TCPL Reasons for Decision	- "National Energy Board Reasons for Decision in the Matter of the Application Under Part IV of the National Energy Board Act (Tolls Application) of TransCanada PipeLines - June 1983"

GLOSSARY OF TERMSTransCanada PipeLines Limited  
Description of Classes or Types of Service1. Contract Demand - CD

TCPL agrees to sell to a Buyer, in a specified delivery area, up to a specific quantity of gas each day, which represents TCPL's maximum daily obligation to deliver to a Buyer. Buyer must pay a fixed monthly demand charge for this service regardless of volumes actually taken and also a charge related to the volume taken, at the Alberta Border Price (ABP) and the Transportation Commodity Rate.

2. Annual Contract Quantity - ACQ

TCPL agrees to sell to a Buyer in the Eastern Rate Zone an annual quantity of gas designated as the Annual Contract Quantity. Forty percent of this annual quantity is scheduled for delivery in the winter period and sixty percent in the summer period. Various curtailment rights are available to TCPL. Charges relate to the volume taken each month, at the ABP and Transportation Commodity Rate, with provision for an annual supplemental charge for volumes offered and not taken.

3. Small General Service - SGS

TCPL agrees to sell to a Buyer, in a specified delivery area, up to a specific quantity of gas each day which represents TCPL's maximum daily obligation to deliver to a Buyer. A Buyer must pay a charge related to the volume taken at the ABP and the Transportation Commodity Rate. Such service is available for a Buyer with primarily residential and commercial space heating load customers.

4. Authorized Overrun Interruptible - AOI

TCPL sells to a Buyer quantities of gas in excess of quantities contracted for by a Buyer and which TCPL may have available from time to time for delivery to a Buyer. Buyer must pay a charge related to the volume taken at the ABP and a Transportation Commodity Rate.

5. Peaking Service - PS

TCPL agrees to sell to a Buyer a designated volume during the winter period in addition to gas purchased by a Buyer from TCPL under TCPL's CD Service Contract. Buyer must pay a charge related to the volume taken at the ABP and the Transportation Commodity Rate. Volumes contracted must be taken or paid for if not taken.

(x)

6. Temporary Winter Service - TWS

TCPL agrees to sell to a Buyer a designated volume subject to curtailment provisions during the winter period in addition to gas purchased by a Buyer from TCPL under TCPL's CD Service Contract. Buyer must pay a charge related to the volume taken at the ABP and the Transportation Commodity Rate. Volumes contracted must be taken or paid for if not taken.

7. T-Service

A Buyer has arranged to have certain volumes of gas delivered to TCPL at the point where the facilities of NOVA join the facilities of TCPL, and to have TCPL transport such volumes to a Buyer's market. Buyer must pay a fixed monthly demand charge for this service regardless of volumes actually taken and also a charge related to the volume taken at a Commodity Rate.

8. Storage Transportation Service - STS

A Buyer desires to have volumes of gas delivered into Union's storage at Lisgar and/or Dawn during the summer period, and requires TCPL to transport the withdrawal of storage gas during the winter period to market. A Buyer must pay a fixed monthly demand charge for this service and also a charge related to the volume of gas delivered into storage at a Commodity Rate.

9. Transportation

TCPL transports a Buyer's gas from certain receipt points to a Buyer's market. Buyer must pay a fixed monthly demand charge regardless of volumes actually transported and a charge related to the volume transported at a Commodity Rate.

EXECUTIVE SUMMARY

(Note: This summary is provided solely for the convenience of the reader and does not constitute part of this Decision or the reasons.)

THE APPLICATION

In February 1984, the Board indicated its intention to hold a public hearing into TCPL's application dated 24 January 1984 for new tolls for the transportation of natural gas, effective 1 August 1984. TCPL filed a revised application with the Board in April 1984.

Among other things, TCPL applied for an increase in the rate of return on rate base, requested deferral accounts for lost and unaccounted for gas, for compressor fuel and for T-Service and CD Service revenue, and proposed to limit the increase in its transportation tolls to 4 percent of the tolls in effect on 1 August 1983 by transferring a portion of its accumulated deferred income taxes to its cost of service.

In addition to the above issues, the Board considered certain rate base matters, the existing depreciation rates and the Applicant's throughput forecast.

DECISIONS

The major decisions of the Board with respect to TCPL's application and to the other principal issues addressed during the hearing are summarized below.

RATE BASEGross Plant

The Board has decided that the costs of constructing a pipeline loop on the Thunder Bay Bypass using a high impact welding process should remain in the rate base as applied for but that the costs associated with projects that have not yet been authorized by the Board should be removed.

Contributions in Aid of Construction

The Board has accepted TCPL's proposal to amortize this amount in its cost of service over the test year beginning 1 August 1984 and ending 31 July 1985.

RATE OF RETURNFunded Debt

The applied-for balance of funded debt represents the average principal of debt capital specifically identified with the utility investments that is projected to be outstanding during the test year. The Board approves the applied-for balance and the proposed cost rate of 14.94 percent.

Unfunded Debt

The Applicant proposed to cost this element of its total capitalization at a rate of 14.5 percent. This rate represented a forecast of TCPL's average long-term corporate debt rate for the test year. The Board notes that there was a certain degree of uncertainty as to prospective interest rate levels as well as to whether the Applicant would actually issue debt on a long-term basis during the test year. Under the circumstances, the Board has decided to cost the unfunded debt at a rate of 14.25 percent.

Preferred Share Capital

The applied-for balance represents the average capital of preferred share issues associated with utility investments projected to be outstanding for the test year. The Board approves the applied-for balance and the proposed cost rate of 10.54 percent.

Common Equity Ratio

TCPL applied for a deemed common equity ratio of 30 percent, representing an increase of 2 percentage points over the level approved in last year's toll hearing. Having regard to the level of business risk faced by TCPL's utility operations and to the improvement in the balance of equity financing implicitly underpinning the Company's non-utility operations, the Board approves the applied-for deemed common equity ratio of 30 percent for the test year.

Rate of Return on Common Equity

The Applicant applied for a rate of return on common equity of 16.5 percent, representing an increase of 1.5 percentage points over the rate approved in TCPL's last toll hearing. The Board notes that interest rate levels have risen significantly since the time of last year's decision and that witnesses in this proceeding foresaw further rate increases during the test year. It was further noted during the proceeding that rate of return awards do not necessarily move in tandem with increases in interest rate levels. In light of these considerations, the Board finds 15.5 percent to be a fair and reasonable rate of return on the approved 30 percent deemed common equity ratio.

Rate of Return on Rate Base

TCPL applied for a rate of return on rate base of 14.83 percent. Based on the decisions noted above, the Board authorizes a rate of return on rate base of 14.53 percent for the test year ending 31 July 1985, as compared to the currently allowed rate of 14 percent.

TRANSPORTATION COST OF SERVICELost and Unaccounted for Gas

The Applicant submitted that an allowance for the test year of 0.0 percent for lost and unaccounted for gas consistent with the Board's Reasons for Decision dated June 1983 is appropriate. As in the past, the Board believes that the allowance for lost and unaccounted for gas should reflect TCPL's past experience. Based on the fact that a five-year average yields an average gain of 0.05 percent, the Board has decided that it would be more appropriate to include a credit of 0.05 percent of forecast input for lost and unaccounted for gas.

TCPL also requested approval of a deferral account for lost and unaccounted for gas to record the cost of variances in the actual quantities from those reflected in the tolls. Because the Board believes that approval of this account would remove the financial incentive for the Applicant to continue its attempts to minimize these costs, the Board has decided to deny TCPL's request.

Compressor Fuel Deferral Account

The Board denies the Applicant's request to establish on a final and continuing basis the interim deferral account for compressor fuel. The Board has decided, however, to approve this deferral account on an interim basis for the test year.

Depreciation Rates

TCPL requested that its existing depreciation rates be approved for the test year.

The Board has decided to reduce the depreciation rates for intangible plant, land rights, mains, autos, aircraft and heavy work equipment and to accept the depreciation rates as proposed for all other accounts.

T-Service and CD Service Revenue Deferral Account

The Applicant proposed to defer the difference between the revenue received for and the actual cost of transporting CD Service and T-Service contract volumes which have not been included for toll design purposes. The Board approves the use of this account on a continuing basis.

Reduction of Accumulated Deferred Income Taxes

The Applicant proposed to transfer \$14,400,000 from its accumulated deferred income taxes in order to limit the increase in its tolls to 4 percent of the tolls which were in effect 1 August 1983. The Board has denied TCPL's proposal.

TOLL DESIGN AND TARIFF MATTERSThroughput Forecast

The Applicant submitted a final throughput forecast of 34 038 million cubic metres for toll purposes for the test year.

Based on current contractual commitments, historical performance and current sales trends, the Board thinks it is more likely that export levels at Emerson, Manitoba will remain at present levels. Accordingly, the Board has decided, for the purpose of calculating test year tolls, to adopt a throughput forecast totalling 32 583 million cubic metres. The Board has consequently reduced the TCPL compressor fuel forecast by 3 166 988 gigajoules.

Authorized Overrun Interruptible (AOI) Tolls

The Board accepts the Applicant's proposal to set winter and summer AOI tolls, which are designed to recover the incremental costs of providing the service in each zone during the test year, thus eliminating the differential in AOI tolls for sales from the TQM system. The Board notes that the market conditions that led to the existing AOI tolls in the Eastern Zone will have changed significantly in the test year.

Toll Increase

As a result of the Board's decisions, TransCanada's new toll for the transportation of natural gas to its Eastern Zone for CD service at 100 percent load factor will increase by  $\$1.488/10^3\text{m}^3$  from  $\$35.157/10^3\text{m}^3$  to  $\$36.645/10^3\text{m}^3$  on 1 August 1984. This represents an increase of 4.2 percent above the current level in the Eastern Zone. In other zones, the increase will be in the order of 3.5 to 4.5 percent.



CHAPTER 1  
THE APPLICATION

By an application dated 24 January 1984, as amended by an application dated 2 April 1984, TransCanada PipeLines Limited (TCPL) applied to the National Energy Board (NEB) under Part IV of the National Energy Board Act (the NEB Act) for orders fixing the just and reasonable tolls TCPL may charge for or in respect of transportation of gas sold by the Applicant, and for transportation services rendered to Saskatchewan Power Corporation (SPC), Consolidated Natural Gas Limited (Consolidated), Gaz Inter-Cité Québec Inc. (GICQ), Gaz Métropolitain, inc. (GMi), ProGas Limited (ProGas), and Sulpetro Limited (Sulpetro), and disallowing any existing tariffs or tolls or portions thereof that are inconsistent with the just and reasonable tolls so fixed, effective 1 August 1984.

TCPL also applied under Section 53 of the Energy Administration Act (EAA) and the Regulations made pursuant to Part III of that Act for orders approving the price to be paid by TCPL to acquire gas for removal from Alberta and revoking current orders to this effect.

The application contained proposed tolls based on TCPL's cost of service using a base period of the 12 months ending 30 September 1983 and a test period of the 12 months commencing 1 August 1984.

In its application, TCPL proposed to credit its test year cost of service with a portion of its accumulated deferred income taxes accrued during the period that it was on normalized income tax accounting. The intent of the proposal would be to limit the increase in the toll for CD service at 100 percent load factor in the Eastern Zone to 4 percent of the toll which was in effect 1 August 1983. This would allow TCPL to comply with the federal government restraint program outlined by the Minister of Finance in his budget speech on 15 February 1984. To implement the proposal, TCPL applied for an order for accounting and toll-making purposes authorizing the transfer of \$14,400,000 commencing 1 August 1984 from Account No. 276 - Accumulated Deferred Income Taxes to Account No. 728 - Other General Expense.

TCPL also applied for an order for accounting and toll-making purposes to allow it to establish a deferral account to record the differences between the actual costs for lost and unaccounted for gas volumes and the estimated costs as approved by the Board. The Applicant proposed that carrying charges would be computed monthly at an annual interest rate equal to the prevailing authorized rate of return on rate base and that the balance including carrying charges would be amortized through adjustments in future tolls.

By Order Nos. TGI-1-83 and AO-1-TGI-1-83, the Board in 1983 established on an interim basis a deferral account for compressor fuel. The Applicant requested an order for accounting and toll-making purposes approving this interim deferral account on a final and continuing basis.

The application also contained a request that all existing and proposed deferral accounts include the recovery of any variances between actual costs and costs recovered in tolls as approved by the Board. At present, all deferral accounts except the interim compressor fuel deferral account refer to any variances between actual costs and costs as allowed by the Board for toll-making purposes.

TCPL also proposed to record in a deferral account the difference between revenues and costs associated with any CD or T-service contracts entered into by it after the close of the current toll proceeding.

Additional details concerning the application and the revised application appear in the following chapters of these Reasons for Decision.

By Order No. RH-1-84, as amended by Order Nos. AO-1-RH-1-84 and AO-2-RH-1-84 (refer to Appendix 1), the Board set down for hearing TCPL's application and amended application. The hearing commenced in Ottawa on 16 April 1984 and lasted 19 days during the months of April and May 1984, concluding on 24 May 1984.

CHAPTER 2  
RATE BASE

TCPL's proposed rate base, as filed, was the average projected utility investment (exclusive of Alberta) for the test year ending 31 July 1985.

The principal rate base issues addressed during the hearing were as follows:

- (1) the inclusion of unauthorized capital projects;
- (2) the inclusion of costs for pipeline looping using a high impact welding process in the determination of rate base; and
- (3) the appropriateness of amortizing contributions in aid of construction over the test year.

The Board has decided to:

- (1) remove from the rate base the costs of projects that have not yet been authorized;
- (2) include in rate base the total projected costs of pipeline looping using high impact welding; and
- (3) accept TCPL's proposal to fully amortize in the test year cost of service accumulated contributions in aid of construction.

The Board's decisions regarding the determination of rate base are explained in succeeding sections of this chapter, and the resulting adjustments are summarized in Table 2-1.

Table 2-1

RATE BASE  
TEST YEAR ENDING 31 JULY 1985

	<u>Application</u> <sup>(1)</sup>	<u>Application</u> <u>as Revised</u> <sup>(2)</sup>	<u>NEB</u> <u>Adjustments</u>	<u>Authorized</u> <u>by NEB</u>
Gross Plant	\$3,339,684,493	\$3,339,762,078	\$ (445,256)	\$3,339,316,822
Accumulated Depreciation	(779,069,806)	(799,070,776)	4,123,039	(794,947,737)
Contributions in Aid of Construction	<u>(3,671,266)</u>	<u>(3,671,266)</u>	<u>-</u>	<u>(3,671,266)</u>
Net Gas Plant	\$2,536,943,421	\$2,537,020,036	\$3,677,783	\$2,540,697,819
Working Capital	82,762,552	82,760,384	(87,787)	82,672,597
Average Accumulated Deferred Income Taxes	(66,024,073)	(65,216,573)	(10,652,349)	(75,868,922)
Other Deferred Costs	<u>6,623,813</u>	<u>9,244,991</u>	<u>-</u>	<u>9,244,991</u>
Total Rate Base	<u>\$2,560,305,713</u>	<u>\$2,563,808,838</u>	<u>\$(7,062,353)</u>	<u>\$2,556,746,485</u>

(1) Application dated 24 January 1984 as amended by TCPL application dated 2 April 1984.

(2) On 25 May 1984, TCPL filed Exhibit B-124, an update of the application. It incorporates various changes based on matters raised during the hearing.

2.1      Gross Plant

TCPL projected its average gross plant for the test year to be \$3,339,762,078. The Board has adjusted this amount to \$3,339,316,822, a decrease of \$445,256 representing the weighted average of gross plant adjustments, as shown in Table 2-2.

Table 2-2

NEB ADJUSTMENTS TO PLANT

<u>Description</u>	<u>Unweighted</u>	<u>Weighted</u>				
	Gross Plant Additions	Gross Plant Additions	Test Year Depreciation	Average Accumulated Depreciation	Adjustment to CCA	
<u>Class "C" Additions</u>						
Unauthorized Capital Projects - Pipe Lowering of Line 300, 1 & 2 (South Castor River)	\$ (450,000)	\$ (311,538)	\$ (7,500)	\$ 2,596	\$ (27,000)	
<u>AFUDC and Overhead</u>						
Decrease resulting from construction orders not yet approved by the Board	(31,275)	(21,651)	(583)	201		-
Decrease resulting from the change in the rate of return from 14.83 to 14.53 percent, and from to the change in the depreciation rate for Mains from 2.75 to 2.5 percent	-	(112,067)	(13,853)	6,372		-
<u>Change in Depreciation Rates</u>	-	-	(8,227,740)	4,113,870		-
<u>TOTAL</u>	<u>\$ (481,275)</u>	<u>\$ (445,256)</u>	<u>\$ (8,249,676)<sup>(1)</sup></u>	<u>\$ 4,123,039</u>	<u>\$ (27,000)</u>	

(1) Refer to Section 4.4.1.

2.1.1 Unauthorized Capital Projects

TCPL included \$311,538 as the weighted average gross plant additions in the test year for projects not yet authorized by the Board. As the Board does not permit the inclusion in rate base of projects that have not been approved under Part III of the NEB Act, the test year rate base has been reduced by \$311,538.

2.1.2 Trial Loop - High Impact Welding

TCPL included in the determination of its test year rate base the costs of constructing a pipeline loop on the Thunder Bay Bypass using a high impact welding process. The Board has previously approved, by Order No. XG-7-84, the construction of the proposed pipeline under Part III of the NEB Act.

Witnesses for TCPL submitted that the proposed pipeline will be used during the test year but could not provide a date when the full capacity of the pipeline loop would be required. They also stated that construction of the pipeline loop at this time will provide the Applicant an opportunity to determine if the high impact welding process is a viable cost-saving technique for pipeline construction.

Intervenors were generally in agreement that the Applicant should continue to participate in research and development that could result in future cost savings. Nevertheless, some intervenors took the position that the additional capacity of the proposed pipeline loop will not be required to provide service during the test year and were opposed to the inclusion of the construction costs in the test year rate base.

Having considered the evidence, the concerns expressed by intervenors and the comments of the Applicant, the Board has decided that the costs of constructing the pipeline loop should be included in the test year rate base.

2.1.3 Allowance for Funds Used During Construction  
(AFUDC) and Capitalized Overhead

TCPL applied to revise its AFUDC rate from four-twelfths of the approved rate of return on rate base to five-twelfths, and to amend its capitalized overhead rate from 1.0 percent to 0.9 percent. The Applicant filed a study carried out by its Plant Accounting Department in support of these requests.

Based on this study, the Board has decided to accept TCPL's proposal to adjust the AFUDC rate from four-twelfths of the authorized rate of return to five-twelfths and the capitalized overhead rate from 1.0 percent to 0.9 percent.

Because the Board has approved a rate of return on rate base of 14.53 percent instead of the 14.83 percent TCPL applied for (see Section 3.5), the AFUDC rate has been adjusted to reflect the authorized rate of return.

In addition, the Board has adjusted the amounts for AFUDC, capitalized overhead, test year depreciation expense and average accumulated depreciation to reflect both the exclusion of unauthorized capital projects from the test year rate base and changes in the depreciation rates.

#### 2.1.4 Construction Warehouse Inventory

In accordance with past practice, TCPL has included the amount of construction warehouse in gross plant in determining its test year rate base.

The items included in construction warehouse basically relate to good and usable material that is surplus to construction and that has a foreseeable use within the next two to five years.

TCPL stated that construction warehouse represents costs reasonably incurred and prudently controlled and should therefore be included in the approved test year rate base. Intervenors did not provide any comment on this matter.

The Board notes that, as a result of recent additions, the balance in construction warehouse has increased significantly. A witness for the Applicant indicated during the hearing that the construction warehouse total anticipated for the year is expected to decrease.

On review of the evidence, the Board has decided to allow the inclusion of the construction warehouse amount in the test year rate base. The Board requires TCPL to file with its next toll application separate descriptions of construction warehouse additions and deletions from the date of this test year forecast.

2.1.5 First Date Placed in Service (FDPS) and Rate Base Variance

Although the Board has accepted TCPL's forecast of FDPS dates, the Board has a continuing concern about the accuracy of forecasting FDPS dates and directs the Applicant to file an updated FDPS date study with its next toll application. In addition to the information currently supplied, this study of the 1983/84 test year should include the rate base variance attributable to cost variances and FDPS date variances.

2.2 Accumulated Depreciation

TCPL projected its average accumulated depreciation for the test year to be \$799,070,776. The Board has reduced average accumulated depreciation by \$4,123,039 as described in Section 4.4, and as outlined in Table 2-2.

2.3 Contributions in Aid of Construction

In accordance with the Board's Gas Pipeline Uniform Accounting Regulations, pipeline companies are required to record non-refundable grants in NEB Account No. 278 - Contributions and Grants. Board approval is required to transfer amounts from the account.

As has been its past practice, TCPL has deducted an amount for contributions in aid of construction in the determination of its total rate base.

The deduction is in respect of the balance in NEB Account No. 278 - Contributions and Grants and represents all of the contributions and grants received by TCPL since it commenced operations. The amount of grants received was not assigned to any particular asset account and, as a result, it has not been reflected in the determination of annual depreciation amounts.

TCPL proposed to amortize evenly over the test period the balance in NEB Account No. 278 - Contributions and Grants at 31 July 1984 to NEB Account No. 304 - Amortization and, in future, to amortize balances that may accumulate in this account at the same rate as the depreciation rate for the related asset.

A witness for the Applicant submitted that the proposed treatment permits TCPL to clear up historical balances that have not been dealt with in the past and to start anew on an accounting basis which is generally acceptable. Intervenors did not indicate any concerns or provide comment on this matter.

On consideration of the evidence, the Board has decided to accept TCPL's amortization proposal for contributions in aid of construction. The Board notes that the amortization of future grants at the same rate as the depreciation rate for the related asset will be in accordance with current accounting practice.

#### 2.4      Working Capital

In its application TCPL estimated its working capital for the test year ending 31 July 1985 to be \$82,760,384. Board adjustments to allowable working capital are summarized in Table 2-3.

Table 2-3

DETERMINATION OF WORKING CAPITAL  
TEST YEAR ENDING 31 JULY 1985

	<u>Application as Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
Cash	\$10,271,799	\$(87,787)	\$10,184,012
Materials and Supplies	28,507,418	-	28,507,418
Transmission Line Pack	40,323,579	-	40,323,579
Prepayments and Deposits	<u>3,657,588</u>	<u>-</u>	<u>3,657,588</u>
Total	<u>\$82,760,384</u>	<u>\$(87,787)</u>	<u>\$82,672,597</u>

2.4.1. Provision for Cash Working Capital

The Applicant requested an amount equal to one-twelfth of annual operating and maintenance expense net of gas-related costs, rate hearing expenses and non-cash items as an allowance for cash working capital. The allowance TCPL applied for differs from its 1983 application in that the one-eleventh approved in 1983 has been reduced to one-twelfth. As in the past, the Applicant submitted a time lag study in support of the request.

No intervenor took issue with the applied-for allowance for cash working capital.

Upon consideration of the evidence, the Board approves an allowance for cash working capital as calculated in TCPL's application.

Adjustments made by the Board to operating and maintenance expense result in an adjustment to the cash working capital allowance as shown in Table 2-4.

Table 2-4

CALCULATION OF ADJUSTMENT OF CASH WORKING CAPITAL ALLOWANCE

Net Operation and Maintenance Expense (per Applicant)	\$123,261,586
Reduction in Salaries and Benefits	(1,305,185)
Reduction in Transmission, Departmental and General Expenses	(213,615)
Reduction in Indirect Charges Allocated to Alberta and Non-Utility	<u>465,359</u>
Net Operation and Maintenance Expense (per NEB)	<u>\$122,208,145</u>
1/12 of Net Operation and Maintenance Expense (per NEB)	\$ 10,184,012
1/12 of Net Operation and Maintenance Expense (per Applicant)	<u>\$ 10,271,799</u>
NEB ADJUSTMENT	<u>\$ (87,787)</u>

2.4.2 Materials and Supplies Inventory

TCPL forecast the test year level of materials and supplies to be \$28,507,418. Of this amount, about \$899,000 relates to material surplus to security. The Board accepts this level for the test year but will continue to monitor the amount of material surplus to security.

2.5 Average Accumulated Deferred Income Taxes

The Applicant requested that its opening average accumulated deferred income tax balance of \$75,868,922 be reduced by \$10,652,349 as shown in Table 2-5. The requested adjustments relate to TCPL's proposal to comply with the federal government restraint guidelines and to the 1978/1979 Revenue Canada income tax reassessments related to TCPL's utility operations. As a result of the Board's decisions on these issues (see Sections 4.1 and 4.6), the requested adjustments are not being made. The amount of average accumulated deferred income taxes to be deducted in computing rate base shall be the amount of \$75,868,922 that is shown to be outstanding at the beginning of the test period.

Table 2-5

TRANSCANADA'S PROPOSED TEST YEAR ADJUSTMENT  
TO AVERAGE ACCUMULATED DEFERRED INCOME TAXES

Opening balance of test year average accumulated deferred income taxes		\$75,868,922
(i) TCPL's proposal to comply with the federal government restraint guidelines	\$(7,200,027)	
(ii) 1978/1979 Revenue Canada reassessment	<u>(3,452,322)</u>	<u>10,652,349</u>
Closing balance of test year average accumulated deferred income taxes		<u>\$65,216,573</u>

CHAPTER 3  
RATE OF RETURN

TCPL applied, as amended, for a rate of return on rate base of 14.83 percent for the test year ending 31 July 1985, as compared to the existing approved rate of 14 percent. This rate of return was based on a deemed average capitalization that was equated to the average utility rate base inside and outside Alberta plus gas plant under construction projected for the test year.

The applied-for deemed average capitalization, as revised, and corresponding individual cost rates and overall requested rate of return are shown in Table 3-1 and discussed in succeeding sections of this chapter.

Table 3-1

REQUESTED DEEMED AVERAGE CAPITALIZATION AND  
REQUESTED OVERALL RATE OF RETURN FOR  
THE TEST YEAR ENDING 31 JULY 1985

	Amount (\$000)	Ratio (%)	Cost Rate (%)	Cost Component (%)
Debt - Funded	1,456,927	54.95	14.94	8.21
- Unfunded	56,225	2.12	14.50	0.31
TOTAL DEBT CAPITAL	1,513,152	57.07		8.52
Preferred Share Capital	342,969	12.93	10.54	1.36
Common Equity	795,480	30.00	16.50	4.95
TOTAL CAPITALIZATION	<u>2,651,601</u>	<u>100.00</u>		<u>14.83</u>

3.1       Funded Debt

The funded debt component of the deemed capitalization represents the average principal of debt capital specifically identified with the utility investments that is projected to be outstanding during the test year. The Board approves the inclusion of this debt in the capital structure used for toll purposes.

TCPL applied for a cost rate for this debt, as amended, of 14.94 percent. This rate was computed on a basis consistent with that employed in each of the Applicant's two previous toll applications. The Board

accepts the applied-for cost rate of 14.94 percent. The computation of the embedded cost rate for funded debt is shown in Appendix IV of this Decision.

3.2        Unfunded Debt

This element of TCPL's total capitalization is derived by subtracting funded debt, preferred share capital and common equity capital from the total capitalization.

TCPL applied for a cost rate for this debt, as amended, of 14.5 percent. The applied-for rate represents a forecast of TCPL's average long-term corporate debt rate for the test year. The Applicant originally applied for a cost rate of 13.5 percent, but subsequently revised its request to a level of 14.5 percent because of previously unforeseen increases in interest rate levels projected for the test year. In recommending this rate, one of TCPL's expert witnesses was of the view that TCPL's average long-term debt rate for the test year would fall within the upper half of a range of 13.75 to 14.25 percent, to the extent that it fell within this range at all. A second witness indicated that a long-term rate of 14.5 percent was reasonable in that it conformed with the consensus forecasts for interest rates. During cross-examination, both of the Applicant's expert witnesses were supportive of the applied-for rate.

The expert witness representing the Canadian Petroleum Association (CPA) testified that it was appropriate to cost this component of the Applicant's capitalization at a long-term rate. This witness did not disagree with the use of the applied-for rate.

The expert witness appearing on behalf of the Minister of Energy for Ontario (Ontario) recommended a rate of 14 percent, based on his understanding that TCPL was not going to issue long-term debt during the test year. During cross-examination, however, the witness indicated that a rate closer to 14.5 percent would be appropriate if TCPL were about to issue long-term debt. Ontario argued that it was apparent that short-term debt will be used to meet any additional funding requirements during the test year. A cost rate of 14 percent was viewed as being more than adequate compensation, given current levels of short-term interest rates and allowing for the possibility of future interest rate increases.

Having regard to all of the evidence, giving specific consideration to the uncertainty surrounding future interest rate levels as well as to whether TCPL will actually issue long-term debt during the test year, the Board has decided to cost the unfunded debt component of the allowed capitalization at a rate of 14.25 percent.

3.3      Preferred Share Capital

The applied-for preferred share capital represents the average capital of preferred share issues associated with utility investments projected to be outstanding during the test year. The applicable cost rate was calculated on a basis consistent with previous applications. The Board accepts the applied-for cost rate of 10.54 percent.

3.4      Common Equity

3.4.1    Common Equity Ratio

TCPL applied for a deemed common equity ratio of 30 percent, which represents an increase of 2 percentage points from the level currently approved for toll purposes.

In its July 1982 TCPL Reasons for Decision, the Board established three main factors that govern the appropriateness of a deemed common equity ratio for toll purposes. They are:

- considerations relating to the business risks faced by TransCanada's utility operations;
- considerations relating to maintaining an appropriate balance between the debt and equity elements of the deemed capitalization; and
- considerations relating to maintaining an appropriate balance between the equity financing attributed to the utility through the deeming process and that portion of such actual consolidated financing which is left to implicitly underpin the Company's non-utility operations<sup>(1)</sup>.

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(1) The non-utility capitalization is obtained by subtracting the dollar values of the various components of total capital deemed to apply to the utility operations from those actually existing in TCPL's consolidated capitalization.

In this regard, the Applicant stated during final argument that it has accepted the use of these three criteria, in principle, in determining the appropriate deemed common equity ratio for its utility operations. In addition, CPA's expert witness was of the view that these criteria capture the principal elements that should be considered in deriving the appropriate deemed common equity ratio for the utility.

The Applicant took the position in final argument that the Board lowered the deemed common equity ratio to a level of 28 percent in 1982 because of an apparent imbalance between TCPL's utility and non-utility capital structures. TCPL submitted that any such imbalance has since been corrected and that, absent a decline in the level of business risk related to the utility operations, their previously allowed deemed common equity ratio of 30 percent should be restored<sup>(1)</sup>. In this connection, the Applicant noted that the expert witnesses representing CPA and Ontario both acknowledged during cross-examination that a 30 percent common equity ratio was not unreasonable given the business risks inherent in TCPL's utility operations.

In the Board's view, the evidence did not indicate that the utility's level of business risk has changed significantly since TCPL's 1983 toll hearing.

With respect to the maintenance of an internal balance between the debt and equity elements of the deemed capital structure, a witness for the Applicant was of the view that a 30 percent deemed common equity ratio results in a balanced capital structure for TCPL's utility operations. The witness found support for his position by referencing other regulated companies with which TCPL must compete for capital, noting that only three of these companies have approved common equity ratios of less than 30 percent. In addition, one

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(1) In its August 1980 TCPL Reasons for Decision, the Board approved a deemed common equity ratio of 30 percent, giving particular consideration to the business risks faced by TCPL's utility operations at that time. Subsequent decisions reflected the Board's view that there had been no significant change in the level of business risk faced by TCPL's utility operations.

of the Applicant's expert witnesses indicated that a return to the 30 percent level, while not in itself being enough to cause TCPL's bond ratings to be restored to their previous level, would represent a positive sign to the debt rating agencies. In this regard, the witness was of the opinion that a 30 percent common equity ratio represented a minimum level, in order to permit TCPL a reasonable level of financing flexibility. Nonetheless, the Board notes that witnesses for both TCPL and CPA agreed that financing flexibility cannot be measured in the absence of a significant equity share issue.

In relation to the residual capital implicitly underpinning its non-utility operations, the Applicant submitted that any imbalance between the utility and non-utility capital structures that may have previously existed has been fully corrected, thereby removing any concerns about the potential for cross-subsidization<sup>(1)</sup>. In support of this position, the Applicant noted that the average test year non-utility equity ratio is forecast to exceed the 31 July 1981 level, which is the approximate date when the Board last approved a deemed common equity ratio of 30 percent for the utility. In addition, the Applicant pointed to an estimated decline of approximately 35 percentage points in the non-utility debt ratio between 31 July 1982 and 31 July 1985<sup>(2)</sup>, and referenced a statement by an intervenor witness indicating that there had been a tremendous improvement in the test year average non-utility debt ratio in comparison with the previous year. As further proof of its view that the problem of cross-subsidization was no longer at issue, the Applicant pointed to statements made by TCPL's expert witnesses that the estimated non-utility capital structure, in effect, satisfies the stand-alone principle.

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- (1) Cross-subsidization may be implied to the extent that the tollpayer is required to reimburse the Company in respect of equity capital that is required for non-utility activities. Such a view may be taken when the deduction of the common equity contained in the deemed utility capitalization from that present in the consolidated capitalization yields a residual to support the non-utility operations that is apparently less than that which would ordinarily be required to finance such riskier operations on a stand-alone basis.
- (2) Based on a comparison of end of test year capitalizations, excluding deferred taxes.

A witness for the Applicant was of the view that it can be quite misleading to focus solely on the common equity ratio in assessing the appropriateness of TCPL's non-utility capital structure. In this regard, the witness stated that deferred taxes contained in the non-utility capital structure effectively constitute equity funding until such time as these taxes have to be paid. Similarly, CPA's expert witness was of the opinion that deferred taxes should be given substantial positive recognition when evaluating TCPL's non-utility capital structure, while the witness representing Ontario indicated that deferred taxes are not unlike equity, but that he would not give these taxes equal weight relative to common equity funds in assessing TCPL's non-utility capital structure.

During cross-examination, a witness for the Applicant indicated that TCPL would soon be placing a 100 million dollar preferred share issue. The witness indicated that the issue proceeds were designated to be non-utility funds, thus further enhancing the non-utility equity ratio. In this regard, CPA's witness was of the view that preferred shares are not a perfect substitute for common equity capital and, as such, should not strictly be added to the common equity and deferred tax balances in deriving a quasi-equity ratio for the non-utility.

Both intervenor witnesses expressed continued concern about the potential for cross-subsidization, citing inadequate debt/equity and coverage ratios as areas where further improvement was desirable. The witness for CPA was of the view that the combined common equity and deferred tax ratio for the non-utility should be in the order of 60 percent. Alternatively, Ontario's witness submitted that the capitalization underpinning TCPL's non-utility operations should reflect a debt ratio of 33 percent, the level he viewed as approximating that of an average industrial. This witness took the position that notwithstanding the tremendous improvement in the financial ratios of the non-utility, these ratios still do not meet the standard of an average industrial.

With respect to coverage ratios, the intervenor witnesses were of the view that the non-utility's interest and fixed charge coverage ratios are not

on a par with industry standards. Under cross-examination, however, CPA's witness conceded that a lower level of coverage would be acceptable having regard to the utility nature of a portion of TCPL's "non-utility" investments.

The Board notes that by combining the common equity and deferred tax ratios of the non-utility, while giving somewhat lesser weight to the non-utility preferred shares, the resulting quasi-equity ratio should equal or surpass the 60 percent base level considered acceptable by CPA's expert witness by the end of the test year. In addition, the Board is of the view that the extent to which the non-utility's coverage ratios might be considered inappropriate is unclear, given the evidence indicating that typical industry standards are not directly applicable to TCPL's non-utility operations.

Having regard to all of the evidence presented in this connection, to the level of business risk inherent in TCPL's utility operations, and giving particular consideration to the improvement in the non-utility debt and equity ratios since the Board's July 1982 TCPL Reasons for Decision, the Board has decided that a return to a deemed common equity ratio of 30 percent is warranted for the test year.

#### 3.4.2 Rate of Return on Common Equity

TCPL applied for a rate of return on common equity of 16.5 percent, compared to the currently allowed rate of 15 percent. The Applicant amended its initial request for a 16.25 percent rate based on revised interest rate expectations for the test year. In requesting a rate of return of 16.5 percent, the Applicant relied upon the advice of its two expert witnesses, who considered the equity risk premium, discounted cash flow (DCF) and comparable earnings approaches to estimating the cost of equity capital.

CPA presented evidence in this matter and their witness recommended a rate of return of 14.75 to 15 percent. In making this recommendation, their expert witness relied primarily on the DCF approach accompanied by an analysis of the appropriateness of the equity risk premium implicit in the result obtained from that technique.

Ontario also presented evidence in this regard and supported a rate of return of 15.25 percent. In making this recommendation, their expert witness relied on the equity risk premium, comparable earnings and DCF approaches to estimating the cost of equity capital.

Through his application of the equity risk premium approach, one of the Applicant's expert witnesses estimated that the investors' required rate of return (IRR) for TCPL lay in the range of 15.75 to 16.5 percent. Based on his analysis of two historical risk premium studies, the witness concluded that the long-term equity risk premium over expected long-term Government of Canada bond rates lay in the range of 5 to 6 percent for the market as a whole. The witness then judgmentally adjusted this range downwards to a level of 3.5 to 4 percent to recognize the lower risks of high-quality utility shares relative to the market as a whole. During cross-examination, the witness stated that he would anticipate a narrowing of this risk premium to a level of 3.25 to 3.75 percent, in conjunction with his increased yield estimate of 12.5 to 13 percent for long-term Government of Canada bonds for the test year.

In applying the DCF technique, the witness relied on market derived illustrations of the IRR for two high-quality Alberta utilities which he viewed as being proxies for TCPL on a stand-alone basis. The indicated IRR for these companies ranged from 14.8 to 15.9 percent, comprised of a dividend yield of approximately 7 percent and growth expectations ranging from 7.5 to 9 percent. Being of the view that TCPL's investment risks are higher than those of his two sample companies, the witness estimated TCPL's IRR to be at least 15 percent.

Giving consideration to the results from his risk premium and DCF tests, the witness estimated that the IRR for TCPL would be in the range of 15.25 to 15.75 percent. After taking into account revised upward changes in interest rate forecasts and incorporating an allowance for flotation costs and market pressure, he recommended a rate of return on book equity in the upper end of a 16.25 to 16.75 percent range.

During cross-examination, the witness stated that he was of the view that greater weight should be given to results emanating from the DCF test relative to the comparable earnings test. In this regard, the witness noted that he stopped using this latter test in 1983.

The Applicant's other expert witness applied the comparable earnings test to six industrial samples, premised on his belief that the returns earned in the last business cycle provide a reasonable proxy for prospective returns in the current business cycle, despite his view that one cannot predict with a high degree of precision whether industrial returns in the current business cycle will equal those of the last cycle. The witness concluded that the results of this test suggested an appropriate rate of return on equity of approximately 16.25 percent. He also noted that, in his view, the comparable earnings test is the most reliable of the approaches he used to determine the cost of common equity capital.

The witness applied the DCF technique to four of the six samples used in his comparable earnings analysis as well as to three electric-gas distribution companies and five telephone companies. In the opinion of the witness, the findings of his DCF studies suggested a basic cost of equity capital of 14.75 to 15 percent. The witness then adjusted the upper end of this range to reflect market-to-book ratios of between 1.1 and 1.15, resulting in a rate of return requirement of 15.9 to 16.3 percent.

Through his application of the equity risk premium approach, the witness concluded that his two risk premium studies suggested longer-run risk premiums of 4 percent over long-term government bond yields and 5 percent over preferred share yields. Adding these premiums to his original forecast of long-term government bond and preferred share yields of 12 and 10 percent, respectively, he found the basic cost of equity capital to fall in a range of 15 to 16 percent.

Subsequent to the preparation of his testimony, the witness increased his forecast of the long-term government rate used for risk premium purposes from 12 percent to a level of 12.5 percent. In addition, the witness stated during cross-examination that practically no weight should be given to the risk premium calculated by reference to preferred shares because of the nature of retraction features currently being attached to such shares.

This witness originally recommended a rate of return on equity of 16.25 percent, but increased his recommendation to a level of 16.5 percent during the hearing to reflect recent changes in interest rate forecasts. TCPL noted in final argument that interest rates had increased by over 200 basis points since the Board's June 1983 TCPL Reasons for Decision and that further increases were expected. In this regard, TCPL submitted that its request for an increase in the rate of return on equity of 1.5 percentage points over last year's level of 15 percent was conservative.

The expert witness for CPA arrived at his rate of return recommendation by applying the DCF technique to a sample of 20 low-risk non-utility companies. His original estimate of the IRR for this group of companies lay in the range of 12.6 to 15.2 percent. Because of his view that the utility activities of established Canadian gas transmission companies are less risky than the low-risk non-utilities included in his sample, the witness concluded that the IRR for the utility activities of established gas transmission companies was no greater than 14 percent.

The witness originally adopted a return on equity recommendation of 14.5 to 14.75 percent, making an adjustment of 50 to 75 basis points to his IRR estimate. This adjustment was made to reflect his concern regarding the uncertainty associated with capital markets over the prospective test year and to allow for a notional "add-on" to avoid the possibility of dilution occurring if shares were actually to be issued by TCPL.

Subsequent to the preparation of his testimony, CPA's witness revised his rate of return recommendation to a level of 14.75 to 15 percent to reflect recent changes in the state of financial markets. In this regard, the witness noted during cross-examination that the dividend yield for his 20 low-risk non-utilities had increased by approximately 25 basis points since the time he had prepared his testimony, thus increasing his IRR to a level not exceeding 14.25 percent.

With respect to the risk premium implicit in this witness' final rate of return recommendation, it was noted during cross-examination that the spread between his recommendation and long-term Government of Canada bond

yields as of mid-May was 1 to 1.25 percent. In support of this small differential, CPA's witness put forward the view that risk premiums have narrowed due to bondholder "lock-in" premiums<sup>(1)</sup> associated with high and volatile levels of inflation and, to a lesser extent, changes in tax legislation.

During cross-examination, this witness indicated that he was of the view that the current "lock-in" premium was in the order of 2.25 to 2.75 percent and that TCPL's shareholders do not require this premium as a component of their equity rate of return, since he was of the view that they do not face the risk of being committed to a rate of interest that does not change with the level of inflation. Alternatively, a witness for TCPL judged that the "lock-in" premium incorporated in the current level of interest rates was no greater than 1.25 percent and that even if it were of greater significance, it would not warrant depriving utility shareholders of this element.

In final argument, CPA took the position that the allowed rate of return should be fixed at the lower end of the 14.75 to 15 percent range.

Based on his equity risk premium analysis, the expert witness representing Ontario concluded that investors in shares of comparable risk to that of the average stock traded on the Toronto Stock Exchange should expect a premium of 2 to 2.5 percentage points over the then current long-term Canada bond rate of 12.4 percent. The resultant range of 14.4 to 14.9 percent was then adjusted downwards to reflect his view that utilities and pipelines are of lesser risk than the average stock traded on the Toronto Stock Exchange. During cross-examination, the witness suggested that his risk premium range of 2 to 2.5 percentage points had decreased by a further 50 basis points since the preparation of his testimony because of recent upward shifts in interest rate levels.

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(1) The "lock-in" premium was defined as the compensation for the possibility that the actual inflation rates in future periods will exceed the rates currently being forecast for those periods.

In his comparable earnings analysis, the witness examined historical average and median returns on book equity for two industrial samples as well as for a sample of 19 utilities. The witness was of the view that this test currently holds substantially less validity than in the past because of the effects of the high levels of inflation experienced during the past decade. In this regard, the witness stated that he placed little reliance on the results of his comparable earnings analysis.

In arriving at his DCF cost of equity capital estimate of 13.51 to 13.53 percent, the witness employed average and median dividend yields combined with historical growth rates in earnings for his utility sample. He then judgmentally reduced the growth rates by 1 percentage point to recognize changes in inflation rates and the rising cost of capital environment during the past decade.

Giving greatest weight to the results of the equity risk premium and DCF approaches, the witness concluded that the IRR level inherent in his analyses was 13.5 to 14.5 percent. After adjusting this range upwards by 75 basis points to a level of 14.25 to 15.25 percent to provide for a market-to-book ratio of 1.1, he adopted a rate of return recommendation for TCPL's utility operations of 15 to 15.25 percent based on apparent upward pressure on interest rate levels.

During the hearing, the witness focussed on the upper end of this return range because of observed increases in interest rates and accordingly revised his recommendation to a level of 15.25 percent. In final argument, Ontario took the position that, if a compressor fuel deferral account was established, the allowed rate of return should remain at the level set in last year's decision.

The Board, as a general policy, awards returns on equity that will not, in its view, impair the financial integrity of a company's utility operations. The Board is also of the view that the determination of an appropriate rate of return on equity involves the use of methods that are subject to the exercise of judgment. It was readily apparent that there was substantial disagreement among the witnesses with regard to the results of

the various cost of capital techniques employed in this hearing. It was also noted that both intervenor witnesses had increased their rate of return recommendations this year when compared to last year.

Based upon its consideration of all of the evidence, giving specific regard to increases in recent and prospective interest rate levels and recognizing that rates of return on equity do not necessarily move in "lock-step" with interest rates, the Board finds 15.5 percent to be a fair and reasonable rate of return on common equity.

3.5        Rate of Return on Rate Base

Based on its finding in this case, the Board has decided that a rate of return on rate base of 14.53 percent is fair and reasonable<sup>(1)</sup>. The deemed capitalization and the derivation of the allowed rate of return are shown in Table 3-2.

Table 3-2

DEEMED AVERAGE CAPITALIZATION AND  
OVERALL RATE OF RETURN APPROVED FOR  
THE TEST YEAR ENDING 31 JULY 1985

	Amount (\$000)	Ratio (%)	Cost Rate (%)	Cost Component (%)
Debt - Funded	1,456,927	55.09	14.94	8.23
- Unfunded	51,281	1.94	14.25	.28
TOTAL DEBT CAPITAL	1,508,208	57.03		8.51
Preferred Share Capital	342,969	12.97	10.54	1.37
Common Equity	793,361	30.00	15.50	4.65
TOTAL CAPITALIZATION	<u>2,644,538</u> (2)	<u>100.00</u>		<u>14.53</u>

(1) A comparison of the rates of return previously authorized, applied for and approved is provided in Appendix V of this Decision.

	<u>(\$000)</u>
(2) Rate Base Outside Alberta	2,556,746
Alberta Rate Base	75,421
Gas Plant Under Construction	<u>12,371</u>
	<u>2,644,538</u>

CHAPTER 4  
TRANSPORTATION COST OF SERVICE

The principal issues examined during the hearing regarding transportation cost of service, excluding return, were:

- (1) the use of a portion of the accumulated deferred income taxes to reduce TCPL's cost of service for the test year;
- (2) the establishment of a deferral account for, and the allowance for lost and unaccounted for gas;
- (3) the continuation on a final basis of the interim deferral account for compressor fuel established by Board Order No. TGI-1-83;
- (4) the appropriateness of current depreciation rates; and
- (5) the establishment of a deferral account for revenue received under T-Service and CD service contracts not incorporated in existing tolls.

The Board has decided to:

- (1) disallow the use of accumulated deferred income taxes to reduce the cost of service for the test year;
- (2) deny the request for a deferral account and include a credit of 0.05 percent of measured input for lost and unaccounted for gas;
- (3) approve the continued use of a compressor fuel deferral account on an interim basis for the test year;

- (4) reduce the depreciation rates for mains and related accounts, autos, aircrafts, and heavy work equipment; and
- (5) approve on a continuing basis the use of a deferral account for T-Service and CD service revenue.

Several other matters relating to TCPL's cost of service were also considered.

Board adjustments to cost of service excluding return are summarized in Table 4-1. Comments on these adjustments appear in the succeeding sections of this chapter.

#### 4.1 Reduction of Average Accumulated Deferred Income Taxes

To comply with the restraint guidelines announced by the Minister of Finance in his budget speech of 15 February 1984, TCPL proposed to use a portion of its accumulated deferred income taxes to reduce its cost of service for the test year<sup>(1)</sup>. The purpose of this proposal was to limit the test year toll increase in the Eastern Zone of TCPL's system to 4 percent of the toll that was in effect on 1 August 1983.

During cross-examination, TCPL's expert witness stated that the proposal had nothing to do with normalized tax accounting principles. The Alberta Petroleum Marketing Commission (APMC) introduced evidence which indicated that the funds that were proposed to be transferred were obtained in the most part from revenues foregone by Alberta gas producers. This was because of the netback pricing system<sup>(2)</sup> which was in place during most of the period when TCPL calculated its income tax provision using the normalized method<sup>(3)</sup>. It was further established during cross-examination that the

(1) In its final revision (Exhibit B-124), TCPL indicated that a \$14,400,000 reduction of accumulated deferred income taxes was necessary to meet the required objectives.

(2) The netback pricing system was in place from November 1975 to November 1981.

(3) TCPL was authorized by the Board to calculate its income tax provision using the normalized method from August 1978 to July 1982.

federal government would be the major beneficiary from the present proposal because of its undertaking to make subsidy payments that would limit the aggregate rate of increase in TCPL's tolls to five percent during the period 1 August 1983 to 31 January 1985. Consequently, the APMC felt that TCPL's proposal would effectively transfer to the federal government a portion of the funds which the Alberta gas producers had foregone.

The Board finds that the Applicant's proposal is a departure from cost-based tolls, and that the use of accumulated deferred income taxes in this manner disregards tax allocation principles. Consequently, the Board has decided that TCPL's proposal is not appropriate and shall not be used.

Table 4-1

TRANSPORTATION COST OF SERVICE  
TEST YEAR ENDING 31 JULY 1985

	<u>Application</u> <sup>(1)</sup>	<u>Application as Revised</u> <sup>(2)</sup>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
Transmission by Others	\$ 151,415,110	\$ 149,890,130	\$15,422,575	\$165,312,705
Operation and Maintenance	250,748,109	247,720,902	\$(14,069,260)	\$233,651,642
Depreciation	92,326,190	92,323,925	(8,249,676)	84,074,249
North Bay Shortcut	15,194,432	15,194,432	-	15,194,432
Taxes Other Than Income Taxes	31,690,230	31,690,230	(384,074)	31,306,156
Income Taxes	127,998,000	128,457,000	(1,723,382)	126,733,618
Reduction in Deferred Taxes	(12,785,000)	(14,400,000)	14,400,000	-
Miscellaneous Deferred Items	6,018,375	6,018,375	-	6,018,375
Other Operating Income	(5,703,549)	(5,703,549)	(3,266)	(5,706,815)
Miscellaneous Revenue	<u>(6,828,492)<sup>(3)</sup></u>	<u>(6,918,754)<sup>(3)</sup></u>	<u>(2,235)</u>	<u>(6,920,989)</u>
Total Transportation Cost of Service Excluding Return	\$ 650,076,405	\$ 644,272,691	\$5,390,682	\$649,663,373
Return at 14.62%	374,316,695	-	-	-
Return at 14.83%	-	380,212,851	(380,212,851)	-
Return at 14.53%	-	-	371,495,264	371,495,264
Total Transportation Cost of Service	<u>\$1,024,390,100</u>	<u>\$1,024,485,542</u>	<u>\$(3,326,905)</u>	<u>\$1,021,158,637</u>

(1) Application dated 24 January 1984, as amended by TCPL application dated 2 April 1984.

(2) On 25 May 1984, TCPL filed Exhibit B-124, an update of the application. It incorporates various changes based on matters raised during the hearing.

(3) Amounts restated by NEB to exclude "Cost of Gas Sold" component from "Miscellaneous Revenue".

4.2 Transmission by Others

TCPL projected its cost of transmission by others for the test year to be \$149,890,130. The Board's adjustments are summarized in Table 4-2 and explained in the following sections.

Table 4-2

COST OF TRANSMISSION BY OTHERS

	<u>Application As Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
<u>Great Lakes:</u>			
(a) Basic Charges	\$132,104,539	\$ -	\$132,104,539
(b) Fuel Adjustment	(38,331,149)	15,418,503	(22,912,646)
Union Gas	6,390,763	-	6,390,763
TQM Cost of Service	82,752,000	-	82,752,000
Deferral Adjustment	(33,271,303)	-	(33,271,303)
Steelman Gas	<u>245,280</u>	<u>4,072</u>	<u>249,352</u>
TOTAL	<u>\$149,890,130</u>	<u>\$15,422,575</u>	<u>\$165,312,705</u>

4.2.1 Great Lakes Fuel Adjustment

Under the pricing régime established pursuant to Part III of the EAA, fuel used in the transmission of gas through the Great Lakes system is purchased by TCPL at the Alberta Border Price<sup>(1)</sup>. Because such fuel is sold to Great Lakes at the export price, TCPL receives revenues in excess of the costs allocated to such fuel, amounting to the excess of the export price over the sum of the ABP plus transmission costs on its system from the Alberta border to the export point. To offset these excess revenues, an equal amount, referred to as the "Great Lakes Fuel Adjustment", is deducted from transmission by others in the cost of service.

(1) As defined in the EAA Natural Gas Prices Regulations, 1981.

The volume of fuel used by Great Lakes in the transmission of gas for TCPL has been adjusted to reflect the change in export sales to Great Lakes (see Section 5.1.1), and was calculated by multiplying the revised sales volume by the fuel ratio approved by the Federal Energy Regulatory Commission (FERC).

The Board has made an adjustment of \$15,418,503 to account for the new transmission costs on TCPL's system from the Alberta border to the export point at Emerson, Manitoba, and the revised fuel volume for Great Lakes.

#### 4.2.2 Steelman Gas

The Board's adjustment of \$4,072 to the Applicant's calculation of the test year transportation costs for gas purchased from Steelman Gas is necessary to reflect the approved transportation costs on the Applicant's system.

#### 4.3 Operation and Maintenance

Adjustments made by the Board to operating and maintenance expense have resulted in a net decrease of \$14,069,260 as shown in Table 4-3.

Table 4-3

TOTAL OPERATION AND MAINTENANCE ADJUSTMENT

Lost and Unaccounted for Gas	\$ (2,284,554)
Compressor Fuel	(10,731,265)
Salaries and Employee Benefits	(1,305,185)
Transmission, Departmental and General Expenses	(213,615)
Adjustment of Indirect Charges Allocated to Alberta and Non-Utility	465,359
Total Adjustment	<u><u>\$ (14,069,260)</u></u>

4.3.1 Lost and Unaccounted for Gas

4.3.1.1 Allowance for Lost and Unaccounted for Gas

In its application, TCPL used 0.00 percent of the forecast input to the pipeline system to estimate lost and unaccounted for gas, consistent with the Board's June 1983 TCPL Reasons for Decision.

As in the past, the Board considers that the allowance for lost and unaccounted for gas should reflect the Applicant's historical experience. Based on evidence presented during this and previous hearings, a five-year average yields an average gain of 0.05 percent of measured input.

The Board has decided to include a credit to the cost of service for lost and unaccounted for gas of \$(2,284,554) calculated as shown in Table 4-4.

Table 4-4

CALCULATION OF ALLOWANCE FOR LOST  
AND UNACCOUNTED FOR GAS

	<u>10<sup>6</sup> m<sup>3</sup></u>	<u>GJ</u>	<u>Amount at ABP of 279.001¢/GJ</u>
Submitted by the Applicant	0	0	0
As Adjusted by the Board	(20.94)	(779,708.6)	<u>\$(2,175,395)</u>
Adjustment	(20.94)	(779,708.6)	<u>\$(2,175,395)</u>
Decrease in Associated COSC			<u>\$(109,159)</u>
Total Adjustment			<u>\$(2,284,554)</u>

4.3.1.2 Deferral Account for Lost and Unaccounted for Gas

TCPL requested approval of a deferral account for lost and unaccounted for gas. This account would allow the Applicant to record the cost of variances between the actual quantities of gas lost and unaccounted for and those reflected in the tolls. TCPL argued that the amount of

lost and unaccounted for gas is impossible to estimate and can be of significant magnitude.

The Board notes that TCPL has requested approval of this deferral account several times and, although some new evidence was introduced during the hearing, the Board is not convinced of the necessity for this account. It is the Board's opinion that approval of a deferral account for lost and unaccounted for gas would remove the financial incentive for the Applicant to continue its attempts to minimize the associated costs. Accordingly, the Board denies TCPL's request for a deferral account for lost and unaccounted for gas.

#### 4.3.2 Compressor Fuel and Operating Uses

##### 4.3.2.1 Cost of Compressor Fuel

Adjustments made by the Board to the cost of compressor fuel, including the federal Canadian Ownership Special Charge (COSC) and provincial sales taxes, have resulted in a net decrease of \$10,731,265, as shown in Table 4-5.

Table 4-5

ADJUSTMENTS TO THE COST OF COMPRESSOR FUEL

TCPL Compressor Fuel	\$ (8,835,928)
COSC on TCPL Compressor Fuel	(443,378)
COSC on GLGT Compressor Fuel	(956,815)
Saskatchewan Sales Tax on Compressor Fuel	(308,073)
Manitoba Sales Tax on Compressor Fuel	(187,071)
Total Adjustments	<u><u>\$(10,731,265)</u></u>

TCPL's forecast for compressor fuel was 49 666 988 gigajoules, which represents the estimate of fuel required to transport the forecast export and domestic throughputs on its system in the test year. For toll purposes, the Board has adjusted the Applicant's throughput forecast for the test year from 34 038 million cubic metres to 32 583 million cubic metres (see Section 5.1.1).

Based upon information provided by the Applicant for various throughput scenarios, the Board believes that the estimate for compressor fuel for the TCPL system should be 46 500 000 gigajoules, a reduction of 3 166 988 gigajoules. This results in a reduction of \$8,835,928 in the cost for TCPL compressor fuel based on the ABP of \$2.79001 per gigajoule.

The corresponding reduction of \$443,378 in the COSC on TCPL compressor fuel is calculated by multiplying the reduction in TCPL compressor fuel by the COSC of \$0.14 per gigajoule.

There is also a corresponding reduction of \$956,815 in the COSC on GLGT compressor fuel, calculated by multiplying the reduction in GLGT compressor fuel (see Section 4.2.1) by the COSC of \$0.14 per gigajoule.

Further corresponding reductions of \$308,073 and \$187,071 were made to provincial sales taxes on compressor fuel used in Saskatchewan and Manitoba respectively. The calculation of the adjustments to provincial sales taxes on compressor fuel is shown in Table 4-6.

Table 4-6

CALCULATION OF ADJUSTMENTS TO PROVINCIAL SALES TAX ON COMPRESSOR FUEL

	<u>Saskatchewan</u>	<u>Manitoba</u>
Fuel Reduction	\$ 5,867,056	\$ 2,968,872
COSC	<u>294,403</u>	<u>148,975</u>
Fuel Valuation	<u>\$ 6,161,459</u>	<u>\$ 3,117,847</u>
 Sales Tax Rate	5.0%	6.0%
Adjustments	<u>\$ 308,073</u>	<u>\$ 187,071</u>

#### 4.3.2.2 Compressor Fuel Deferral Account

The Applicant requested approval, on a final and continuing basis, of the compressor fuel deferral account established on an interim basis by Board Order Nos. TGI-1-83 and A0-1-TGI-1-83. The currently approved deferral account allows the Applicant to record the variances between the actual cost of compressor fuel used and the cost of compressor fuel that is actually recovered in tolls approved by the Board.

In support of its request, TCPL stated that these variances in compressor fuel usage are caused by variances in throughput volumes from estimates, which are in part caused by changes in market conditions. Because market conditions can change in any test year, resulting in major compressor fuel variances, TCPL contended that it would be inappropriate for the Board to approve the deferral account on a test-year-to-test-year basis.

TCPL stated that the amount of compressor fuel it uses is dependent on two factors: the mechanical condition of its compression equipment and the amount of throughput moving through the system. TCPL maintained that because it operates its compressors efficiently, fuel costs that are higher than estimated are a result of higher throughput and, therefore, should be recovered in a future cost of service. Likewise, over-recovery of fuel costs resulting from throughput being lower than estimated should be credited to a future cost of service.

Most intervenors, although not in favour of establishing a compressor fuel deferral account on a final and continuing basis, were in favour of continuing the deferral account for the test year. It was felt that TCPL faced uncertainties regarding throughputs and that there was a possibility of significant compressor fuel variances in the test year.

Some intervenors expressed concern that, in the absence of a deferral account, there is a disincentive for TCPL to make incremental sales.

Union Gas Limited (Union) supported the Applicant's request for approval of the deferral account on a final and continuing basis. Union believes that variances in compressor fuel costs are beyond TCPL's control, and the amount of such variances can be substantial.

The Board is not satisfied that a compressor fuel deferral account is necessary on a continuing basis at this time. The Board considers, however, that there is a possibility of significant compressor fuel variances in the test year because of difficulties in estimating throughputs caused by uncertainties with respect to market conditions. The Board has decided, therefore, to approve the compressor fuel deferral account on an interim basis for the test year.

#### 4.3.2.2.1 Disposition of the Balance in the Compressor Fuel Deferral Account

In respect of the compressor fuel deferral account, the Board has decided that the forecast balance in the account at 31 July 1984 of \$21,339,326 is to be amortized as a credit to cost of service in twelve equal monthly amounts commencing 1 August 1984.

Any variance between the \$21,339,326 and the actual amounts in the compressor fuel deferral account as of 31 July 1984 is to be included in a separate deferral sub-account of the compressor fuel deferral account, together with carrying charges calculated on the month-end balance at a rate equal to one-twelfth of the authorized annual rate of return on rate base, for disposition by the Board in subsequent toll proceedings.

#### 4.3.2.2.2 Sub-Account to Record Fuel Cost Associated with ACQ Make-Up Volumes

In response to the comments of intervenors, TCPL proposed in argument to keep a separate sub-account under the compressor fuel deferral account to defer the cost of compressor fuel associated with any ACQ make-up volumes that may be delivered in future test years.

The ACQ make-up volumes are those volumes subject to the ACQ deferral arrangements of March 1984 between TCPL and Union and The Consumers' Gas Company Ltd. (Consumers'). These arrangements provide for a deferral by Union and Consumers' of ACQ volumes not taken during the 1982/83 contract year, with the right to make up such volumes prior to 31 October 1987.

During the course of the hearing, several intervenors expressed concern over the treatment of incremental fuel costs that could result from TCPL's deliveries of ACQ make-up volumes. They noted that they had supported the ACQ deferral arrangements of last spring on TCPL's assurance that no tollpayers other than Union and Consumers' would be affected.

The Board finds TCPL's proposal for a sub-account appropriate in these circumstances. Accordingly, the Board directs that TCPL defer variances associated with the delivery of ACQ make-up volumes in a sub-account of the compressor fuel deferral account. In addition, TCPL is required to bring any deferred balance forward for disposition at its next toll hearing.

#### 4.3.3 Salaries and Employee Benefits

##### 4.3.3.1 Escalation Factor

In its estimate of test year salaries, TCPL applied for a general economic increase including merit of 5.2 percent in 1984 and 6.5 percent for 1985. Witnesses for TCPL stated that the 1985 escalation factor is less than that recommended by its consultant but is the Applicant's response to the federal government's price restraint program.

Wage and salary settlements for 1985 are projected to range from 3 to 5 percent for general increases, although economic forecasters predict increases ranging from 3.6 to 9 percent. Taking into consideration recent settlements and general economic restraint, the Board believes that an increase of 5.2 percent for 1984 and 5 percent for 1985, including merit adjustments, is reasonable. Accordingly, the allowance for salaries in the cost of service for the test year has been reduced by \$457,200.

#### 4.3.3.2 Actual versus Approved Salary Increase for 1982

In its July 1982 and June 1983 TCPL Reasons for Decision, the Board allowed the Applicant to provide for a salary increase of 12.0 percent for 1982; however, the salary increase granted by TCPL for 1982 was 13.2 percent. In its application, TCPL did not adjust the base year salary to reflect previous Board decisions. During cross-examination, witnesses for TCPL stated that the Board's rulings in 1982 and 1983 had worked as a positive incentive for salary restraint. The witnesses also emphasized that to continue the adjustment would place TCPL in a non-competitive position in the marketplace for labour.

Because the Applicant has endeavoured to restrain salary increases, the Board has decided to discontinue the adjustment for the test year.

#### 4.3.3.3 Cost of Additional Employees

At the end of the 1983 base year, TCPL had 1586 staff positions and 28 vacancies. For the period extending to the end of the 1985 test year, it has included a provision for 20 new positions, for both utility and non-utility operations, with the intention of reducing excessive overtime in the accounting area and improving the production of timely and accurate accounting information.

CPA pointed out that other pipeline companies were reducing staff whereas TCPL is proposing to increase its staff above the base year levels. CPA suggested that increasing staff is inconsistent with restraint. Witnesses for the Applicant replied that TCPL made every effort to reduce its staff requirements and to request only the additional positions that are absolutely necessary.

The Board notes that since September 1983 the Applicant has continued to experience low throughput and reduced construction activity leading to a cut of 36 engineering/operations positions. The Board also notes that the portion of salaries allocated to non-utility operations for the test year is at an all-time high. Taking into consideration the low throughput,

the reduction in construction activities and the period of economic restraint, the Board allows \$100,000 for salaries and \$16,305 for benefits for additional staff requirements in the test year. The allowance for the salaries in the cost of service for the test year has been reduced by \$653,128.

#### 4.3.3.4 Benefits

With regard to employee benefits during the test year, the Applicant forecast increases because of changes in statutory plan and retirement plan costs, additional employees, and increases in salaries. Having regard to this evidence, the Board accepts TCPL's estimate of its test year cost of employee benefits, as modified to reflect the above-noted reduction in the test year allowance for salaries.

As a result of the above reductions, the test year allowance for employee benefits has been reduced by \$194,857.

#### 4.3.4 Allocation of Expenses to Non-Jurisdictional Functions

TCPL used essentially the same method of allocating administrative and general expenses to its utility, non-utility and Alberta operations as it used in its 1983 toll application.

Under the present method of allocation, identifiable expenses are charged directly to utility, non-utility and Alberta operations. To make allocations of indirect expenses, formulae based on direct salaries are applied to the portion of the administrative and general expenses that cannot be charged directly to TCPL's divisions. The Applicant has refined the method of allocating these indirect expenses by developing revised formulae to more accurately reflect the allocation of aircraft expenses.

The present method of allocating indirect expenses, while largely satisfactory, is an evolutionary procedure requiring periodic refinements. The allocation of employee benefits to Alberta operations is an area requiring such refinement.

The Board finds the methods used by the Applicant to allocate administrative and general expenses to utility, non-utility and Alberta cost of service to be reasonable. However, the Board expects TCPL to keep such allocation methods under review and to continue to make improvements where possible.

4.3.5      Transmission, Departmental and General Expenses

TCPL estimated test year transmission, departmental and general expenses by using forecasts from suppliers whenever possible and, where not possible, by applying the March 1984 "Blue Chip Economic Worldscan" forecasts for Consumer Price Index (CPI) growth of 5.9 percent for 1984 and 6.3 percent for 1985.

The Applicant testified that the Worldscan forecast of CPI, which is based on about 30 major American and domestic economic forecasts, results in a representative number to use for general escalation. TCPL further asserted that, although there may be some greater value to using domestic forecasters, one should not exclude the foreign component.

The Board notes the continued low rate of inflation - total CPI grew at 4.9 percent annual rate in the first quarter of 1984 - and that major forecasters including the Department of Finance are predicting CPI growth of 4.5 percent to 6.0 percent for 1985. Taking into consideration all of these factors, the Board concludes that escalation rates of 5.2 percent for 1984 and 6.0 percent for 1985 are reasonable inflation adjustments for test year cost of service allowances for certain transmission, departmental and general expenses. The test year cost of service allowance is reduced by \$213,615 to reflect the reduction in the inflation adjustment.

4.4      Depreciation

TCPL requested that its existing depreciation rates be approved for the test period to assist it in complying with the federal government's restraint guidelines. Its existing approved depreciation rates are straight-line rates, with the exception of Account No. 482 - Structures and Improvements, which is being amortized on the remaining-life-of-lease basis.

TCPL's existing approved depreciation rate for mains is 2.75 percent, established in 1975, based upon the estimated economic life of the pipeline as determined from gas supply evidence. The same 2.75 percent rate is applicable to land rights and intangible plant. Depreciation rates for other accounts were established in 1965 based upon estimated physical life and have remained unchanged in subsequent reviews.

The Applicant submitted a depreciation study, dated 31 December 1982, prepared by Stone and Webster Management Consultants Inc. This study recommended higher overall depreciation rates based primarily upon the inclusion of negative salvage values in respect of transmission facilities. The study proposed a depreciation rate of 3.17 percent for mains based on a remaining service life of 31.6 years.

Because the depreciation rates recommended in the study would have resulted in an increase in the test year cost of service of approximately \$7 million, the Applicant requested that it be allowed to retain its existing depreciation rates in order to comply with the federal government restraint guidelines.

In its Hearing Order No. RH-1-84, the Board excluded negative salvage value from consideration in this hearing. The Applicant then reviewed its gas supply data and concluded that a depreciation rate of 3.12 percent for mains was appropriate based on a reserves to production index (RPI) of 25.7 years. TCPL calculated its RPI of 25.7 years by dividing its remaining contracted reserves at the end of 1983 by its estimated production for 1984. However, the Applicant continued to request that it be allowed to retain its existing depreciation rate for mains, to comply with the federal government restraint guidelines.

The Applicant contended that, although it may contract for additional reserves in future, its ability to contract is constrained by market conditions and by an agreement with its suppliers.

Some intervenors questioned the adequacy of the Stone and Webster study, which was mainly a statistical analysis of the physical life of the assets. The 31.6 year remaining service life for mains as determined by the study was considered inappropriate because of the low turnover of this group of assets and the limited retirement history of the Applicant.

CPA disagreed with the Applicant's proposal to retain the existing depreciation rate of 2.75 percent for mains because it was higher than that which would result from a statistical analysis of the pipeline.

CPA included in evidence an RPI of 42 years based upon remaining established marketable gas reserves in conventional areas at the end of 1982 plus estimated appreciation and discoveries between 1983 and 1995, and an estimate of 1983 marketed production. CPA's witness stated that this calculation was illustrative only and was conservative. TCPL found CPA's method of calculating the 42 year RPI to be inappropriate because it did not consider future growth in production.

Both APMC and CPA contended that it was unreasonable to consider only the current contracted reserves of TCPL in determining the economic life of the pipeline, because it would in effect allow the Applicant to control the amount of its own depreciation provision. The fact that TCPL's RPI calculation was based upon its own estimate of 1984 production was also a concern to APMC because, in the past, TCPL's estimates of production have tended to be optimistic.

APMC was of the opinion that TCPL's present gas supply should not be considered a constraint in determining its rate of depreciation. APMC argued that gas supply should be completely ignored and the depreciation rate reduced to at least 2.54 percent. This rate was suggested by the Applicant's witnesses as being appropriate if both TCPL's reserves and negative salvage were disregarded as constraints.

Northern and Central Gas Corporation Ltd. (N&C) recommended a depreciation rate of 2.58 percent for mains based upon an RPI of 31.0386 years. N&C determined its RPI by using the same figures as TCPL, but adding

reserve growth on TCPL's currently contracted lands. For all other accounts, N&C recommended the rates shown in the Stone and Webster study, excluding negative salvage values.

Consumers' recommended that the Board not change TCPL's existing depreciation rates but that the Board direct the Applicant to prepare a proper depreciation study that would encompass all of the pertinent physical and economic factors. Consumers' also felt that, in the context of a complete assessment of depreciation rates, abandonment costs including an allowance for negative salvage should be considered.

Most intervenors considered the 3.12 percent depreciation rate calculated by TCPL, based on an RPI of 25.7 years, to be inappropriate, because the RPI was calculated using only the Company's currently contracted reserves. The Memphis Light and Consolidated Gas Supply Corporation decisions in the United States were cited in support of including future additions to the pipeline's gas reserves in any determination of depreciation rates based upon the exhaustion of natural gas supplies. Some intervenors also referred to evidence that FERC takes into account reserves from all sources of supply for a given pipeline in determining an RPI.

Various intervenors mentioned the following items as deserving some consideration in determining an appropriate RPI for the Applicant:

- (1) future reserve additions on TCPL's currently contracted lands;
- (2) uncommitted Alberta reserves including future additions;
- (3) present and future reserves of TCPL's shippers; and
- (4) Mackenzie Delta and other reserves in the Southern Yukon and Northwest Territories.

The Board considers that depreciation rates should be based upon the service value and estimated service life of the plant assets. An assessment of the service life of plant assets should include a forecast of both the physical and economic life of the facilities. The Board takes into

consideration not only the relevant facts concerning physical and economic life of depreciable assets but also exercises its judgment in setting appropriate depreciation rates.

The depreciation study submitted by the Applicant in support of a physical life of 31.6 years for mains is almost entirely a statistical analysis. Such an analysis is considered by the Board to be of limited value in determining the useful life of line pipe, especially in TCPL's case, because of the very low turnover in that group of assets and of the limited retirement history of the pipeline.

In the Board's opinion, the physical life of the line pipe can be extended well beyond the 31.6 years calculated in the study through normal cathodic protection and maintenance procedures. Therefore, the Board considers economic life to be the principal factor in establishing appropriate depreciation rates at this time.

A proxy for a measurement of the economic life of assets has in the past been the RPI. An RPI is at best an approximation of economic life as illustrated by the wide range (25.7 years to 42 years) of RPI included in evidence.

In the Board's opinion, all of the conventional reserves available to the Applicant, including future reserves growth on TCPL's currently contracted lands, uncommitted Alberta reserves and frontier reserves, should be given some consideration in estimating the economic life of the pipeline. Economic conditions and undertakings with producers are considered to be only temporary constraints on TCPL's ability to contract additional reserves.

The Board has decided, on the basis of the evidence, that a remaining service life for mains of about 32 years is reasonable and that a depreciation rate of 2.50 percent on original cost is appropriate for these facilities. As the service lives of land rights and intangible plant have been linked to that of mains in the past, the Board considers that these assets should also be depreciated at a rate of 2.50 percent.

Based upon the evidence included in the Stone and Webster study, the Board has concluded that the application of the existing depreciation rates for autos, aircraft and heavy work equipment has resulted in over-depreciation of these assets. Accordingly, the Board has decided that the appropriate depreciation rates for these accounts should be: Autos - 12 percent; Aircraft - 6 percent; and, Heavy Work Equipment - 6 percent.

The Board has approved the depreciation rates as proposed by the Applicant in respect of compressors, measuring and regulating equipment, structures and improvements, furniture and equipment, and tools and work equipment.

#### 4.4.1 Approved Rates and Adjustments to Depreciation Provision

The depreciation rates approved by the Board and the adjustments to depreciation expense are shown in Table 4-7.

Table 4-7

DEPRECIATION RATES AND PROVISION

Plant Accounts	Depreciation Rates		Depreciation Provision		
	Rates Applied For (%)	Rates Approved (%)	Application as Revised	NEB Adjustments	Authorized by NEB
Intangible Plant	2.75	2.50	\$240,132	\$(21,828)	\$218,304
Land Rights	2.75	2.50	194,076	(17,652)	176,424
Mains	2.75	2.50	73,124,471	(6,655,179)	66,469,292
Compressors	3.50	3.50	19,796,232	-	19,796,232
Measuring and Regulating	3.50	3.50	929,305	-	929,305
Structures and Improvements	R/L(1)	R/L(1)	672,108	-	672,108
Furniture and Equipment	7.00	7.00	495,476	-	495,476
Autos	20.00	12.00	1,130,297	(452,117)	678,180
Aircraft	10.00	6.00	1,710,108	(684,048)	1,026,060
Heavy Work Equipment	10.00	6.00	1,011,039	(404,416)	606,623
Tools and Work Equipment	7.00	7.00	957,271	-	957,271
SUB-TOTAL			\$100,260,515	\$(8,235,240)	\$92,025,275
Non-Utility - Aircraft			(669,892)	-	(669,892)
- Office			(98,000)	-	(98,000)
AFUDC and Overhead			173,833 <sup>(2)</sup>	(14,436)	159,397
Adjustment regarding contributions in Aid of Construction			(7,342,531)	-	(7,342,531)
TOTALS			<u>\$92,323,925</u>	<u>\$(8,249,676)</u> <sup>(3)</sup>	<u>\$84,074,249</u>

(1) Assets are amortized on the remaining-life-of-lease basis.

(2) Reduced to reflect TCPL's adding error of \$4,530.

(3) Refer to Table 2-2.

4.5        Taxes Other Than Income Taxes

TCPL applied for approval of municipal taxes for the test year calculated using escalation factors of 7.02 percent in 1984 and 7.07 percent in 1985. These escalation factors were determined by the Applicant based on estimates of mill rate increases received from certain municipalities.

The Applicant filed in evidence a comparison of actual municipal taxes with estimates made by TCPL for the last five test years. It was noted that the forecast taxes were approximately one percentage point higher than actual taxes over the past five test years on a weighted average basis.

Based upon a review of the evidence, the Board has decided to allow escalation rates of 6.02 percent in 1984 and 6.07 percent in 1985. The Board's decision results in a reduction of \$384,074 in the test year cost of service allowance for taxes other than income taxes.

4.6        Income Taxes

4.6.1      Deferral Account for 1978 and 1979 Income Tax Reassessments

On 20 May 1983, TCPL was reassessed \$10,647,878 related to its utility operations for the taxation years 1956 to 1979. This amount includes \$3,452,322 related to TCPL's 1978 and 1979 taxation years. The amount reassessed includes taxes and related interest. As required by law, this amount was paid on 19 January 1984. A formal notice of objection with respect to the above reassessment was filed by TCPL on 19 March 1984.

In its August 1980 TCPL Reasons for Decision, the Board authorized TCPL to record any payments related to income tax reassessments for the years 1956 to 1977 in a deferral account when the payments were made. This deferral account would bear carrying charges at the authorized rate of return on rate base pending final disposition by the Board.

In the current toll application, TCPL applied to charge \$3,452,322 of the reassessment related to the 1978 and 1979 taxation years to its utility accumulated deferred income tax balance of \$75,868,922, effective 1 August 1984.

During cross-examination, witnesses for the Applicant agreed that it would be preferable to defer treatment for toll purposes of the 1978 and 1979 reassessments until such time as TCPL's disagreement with Revenue Canada is settled.

The Board has decided that the most appropriate treatment of the 1978 and 1979 reassessments would be to record them in the same deferral account as the 1956 to 1977 reassessments. If any amount is refunded when the appeal is settled, the amount of the refund including interest should be credited to the deferral account. The Board also requires the Applicant to bring the deferral account forward for final disposition when its disagreement with Revenue Canada has been resolved.

4.6.2 Flow-Through Tax Calculation

The Board has computed \$126,733,618 as the amount of income taxes to be included in the Applicant's tolls. The computation is shown in Table 4-8.

Table 4-8

FLOW-THROUGH TAX CALCULATION

UTILITY INCOME AFTER TAX	\$153,916,138 (1)
<u>Adjustments to Utility Income After Tax</u>	
Add	
Depreciation	84,074,249 (2)
Capital Gains	111,329
Non-Allowed Amortization of Debt Discount and Expense	770,250
Amortization of North Bay Shortcut	15,194,427
Deduct	
Capital Cost Allowance	127,230,000 (2)
Overhead Capitalized	1,292,275 (3)
Eligible Capital Expenditures	75,517
Inventory Allowance	1,210,000
Interest AFUDC	2,203,928 (3)
UTILITY INCOME AFTER TAX, AS ADJUSTED	<u>\$122,054,673</u>
UTILITY INCOME TAX ALLOWANCE	
$\frac{.50976}{1 - .50976} \times \$122,054,673$	126,914,552
Less:	
Ontario Reduction	123,734 (3)
Investment Tax Credit on Research and Development	57,200
UTILITY INCOME TAX ALLOWANCE, AS ADJUSTED	<u>\$126,733,618</u>

(1) Equals the allowed rate base multiplied by the sum of the allowed weighted average costs of preferred and common equity capital, i.e., \$2,556,746,485 x (.0137 + .0465) (see Tables 2-1 and 3-2).

(2) Revised to reflect Board adjustments attributable to rate base deletions (Table 2-2) and revised depreciation rate (see Table 4-7 and Section 4.4.1).

(3) Revised to reflect Board adjustments (see Table 2-2).

4.7        Deferral Accounts

4.7.1      Gas-Related Cost Deferral Account

TCPL applied for a deferral account for the recording of variances between the actual ABP and the ABP reflected in tolls approved by the Board in respect of those items of gas-related costs not otherwise the subject of a deferral. The deferral account is requested for 1 August 1984, to be used in the future only to the extent that ABP changes are not known in time for the Board to adjust the tolls according to the usual procedure of past years.

The Applicant expressed its concern that given the dependence of the ABP effective 1 August 1984 on world oil prices and the gas/oil parity relationship, the ABP will not be determined in time to be reflected in tolls. The Applicant requested that its gas-related cost of service be protected in this situation over which it has no control.

The Board notes that at the time of writing, the ABP effective 1 August 1984 is not known and may not be available in time for toll adjustments to be made. The tolls as set out in Appendix II reflect the existing ABP of \$2.79001 per gigajoule. Given this timing uncertainty, the Board considers it appropriate to approve a deferral account allowing the Applicant to defer variances between the actual ABP and the ABP used by the Board in its determination of tolls, in respect of those gas-related costs not otherwise the subject of a deferral. The existence of such a deferral account will not alter the Board's usual procedure of adjusting tolls to reflect changes to the ABP, to the extent that such changes are available in time for toll adjustments to be made.

4.7.2      Modification of Wording in Existing Deferral Accounts

The Applicant requested an amendment to the language of all of its existing deferral accounts to provide for the deferral of any variances between actual costs and costs recovered in tolls as approved by the Board. The current language requires TCPL to defer variances between actual costs and costs approved by the Board.

The reason given by TCPL for the proposed wording change is that costs approved by the Board can be different from costs recovered in tolls approved by the Board when and if:

- (1) throughput variances occur;
- (2) tolls approved by the Board become effective at a date later than requested by the Company; and
- (3) prescribed prices do not reflect tolls approved by the Board.

It is in these circumstances that TCPL, through the amended language of deferrals, proposes to ensure that "true" differences between amounts collected and actual costs are reimbursed or charged to its customers.

TCPL also noted that the proposed language amendment is consistent with the language of the compressor fuel deferral account, established on an interim basis by Board Order No. TGI-1-83.

One intervenor offered support for TCPL's proposed language amendment, but others opposed it because of their concern that the new language would create a situation of illegality in the event of future inconsistencies between tolls and prescribed prices. Ontario further noted that TCPL's concern about not recovering its approved costs because of variances in throughput is largely taken care of by the compressor fuel deferral account.

Having carefully reviewed the evidence, the Board has decided to deny TCPL's proposed modification to the wording of its existing deferral accounts.

The Board notes that differences that might result from throughput variances will be almost entirely captured by the compressor fuel deferral account established by Board Orders TGI-1-83 and A0-1-TGI-1-83, and continued into the test year by Board Order No. TG-6-84 (see Section 4.3.2.2). A number of the Applicant's existing deferral accounts relate to fixed cost components of cost of service and as such are unaffected by throughput variances.

Further, where costs approved by the Board differ from costs recovered in tolls approved by the Board because of inconsistencies between tolls and prescribed prices, the Board is not convinced that it would be appropriate to allow recovery of the resulting variances in future tolls.

#### 4.7.3 T-Service and CD Service Revenue Deferral Accounts

To the extent that TCPL's contracted demand volumes increase during the course of a test year over and above the levels reflected in tolls to be charged in the test period, the Applicant proposed to defer the difference between the revenue received by it as a result of transporting these volumes and the actual cost of transporting such volumes. The deferred balance together with carrying charges calculated monthly at one-twelfth of the authorized annual rate of return is proposed to be brought forward for disposition in future toll proceedings.

By Interim Order No. TGI-2-83, the Board established a deferral account effective 1 November 1983 requiring TCPL to defer the difference between revenues received by it in respect of transporting volumes under a T-Service contract with GICQ and the actual cost of transporting those volumes. The Board considered it desirable in the circumstances to establish the deferral account on an interim basis for review in the RH-1-84 toll proceeding. The Applicant proposed the continuation of this type of deferral account with its expansion to cover future CD Service and T-Service contract volumes not reflected in tolls.

One intervenor opposed the continuation of the type of revenue deferral account established by Order No. TGI-2-83 because the presence of such a deferral removes financial incentive for TCPL to aggressively market gas.

Another intervenor commented on the Applicant's practice of reflecting only those demand volumes from signed contracts for toll design purposes. According to this intervenor, volumes not yet contracted for, but reasonably expected to be contracted for and taken during the test year, should be reflected in the tolls for the test year.

Having considered the evidence in the review of this matter, the Board considers it appropriate to approve on a continuing basis, a CD and T-Service revenue deferral account similar to that established for the GICQ T-Service contract by Order No. TGI-2-83. The Board requires the Applicant to defer the difference between the revenue received and the actual cost of transporting those CD or T-Service contract demand volumes which are over and above the levels of such volumes reflected in tolls to be charged in the test period, together with carrying charges on the month-end balance in the account for each month calculated at one-twelfth of TCPL's authorized annual rate of return on rate base.

4.7.4      GICQ Demand Revenue Credit

By Board Order No. TGI-2-83, TCPL was directed to defer the difference between the revenues received by it as a result of transporting volumes for GICQ and the actual cost of transporting such volumes.

The deferred amount together with carrying charges is (\$4,011,016).

The Board approves the amortization of this amount in the cost of service for the test year. The average unamortized deferred balance will be included in rate base.

4.8      Other Operating Income

The Board's adjustment of (\$3,266) to the Applicant's calculation of other operating income for the test year was necessary to reflect increased revenue from the sale of delivery pressure arising from the newly approved Manitoba tolls, which are used in the calculation of that revenue.

4.9      Miscellaneous Revenue

The Applicant credited its transportation cost of service with miscellaneous revenue amounting to \$6,918,754. This amount included revenue from the sale of PS and TWS.

The Board has made an adjustment to miscellaneous revenue of (\$2,235) to reflect increased revenue from the sale of PS and temporary TWS based on the approved tolls.

CHAPTER 5  
TOLL DESIGN AND TARIFF MATTERS

5.1      Toll Design

The main issues dealt with during the course of the hearing related to:

- (1) the accuracy of TCPL's test year throughput forecast for export sales and transportation service volumes; and
- (2) TCPL's proposal to use winter and summer tolls for AOI sales in each zone in the test year based on the incremental cost of providing the service.

The Board has decided to:

- (1) reduce the Applicant's test year throughput forecast for export sales and transportation service volumes as well as its forecast for the corresponding compressor fuel volumes; and
- (2) accept TCPL's proposal to set incrementally-costed summer and winter AOI tolls for each zone in the test year.

Several other issues relating to toll design were also considered at the hearing.

5.1.1    Test Year Throughput Forecast

The Applicant submitted a final throughput forecast for the 1984/85 test year of 34 038 million cubic metres for toll purposes. This forecast was greater than both the current forecast for the 1983/84 test year of 31 303 million cubic metres and the normalized<sup>(1)</sup> 1982/83 test year of 29 573 million cubic metres.

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(1) As adjusted for normal weather conditions.

The main issues addressed at the hearing in relation to the test year throughput forecast were:

- (1) domestic sales and transportation service volumes;
- (2) export sales and transportation service volumes; and
- (3) adjustment of compressor fuel volumes.

#### 5.1.1.1 Domestic Sales, Transportation and T-Service Volumes

Domestic deliveries were estimated by TCPL to increase in the 1984/85 test year by 3.5 percent over the 1983/84 test year (see Table 5-1). The forecast increase in domestic sales and transportation services is primarily attributable to expansion into new markets in Quebec. The underlying assumption in the domestic forecast is that the current competitive position of natural gas will be maintained during the test year.

No intervenor challenged the Applicant's test year throughput forecast for the domestic market.

Table 5-1

TCPL FORECAST OF  
DOMESTIC AND EXPORT DELIVERIES  
1984/85 TEST YEAR VERSUS CURRENT FORECAST 1983/84 TEST YEAR

	Test Year 1984/85 ( $10^6 \text{ m}^3$ )	Current Forecast Test Year 1983/84 ( $10^6 \text{ m}^3$ )	Increase Volume ( $10^6 \text{ m}^3$ )	Increase Percent
<u>Domestic Deliveries</u>				
Sales	23 715	22 984	731	3.2
Transportation				
& T-Service	1 267	1 158	109	9.4
TOTAL DOMESTIC				
DELIVERIES	24 982	24 142	840	3.5
<u>Export Deliveries</u>				
Sales	5 931	4 407	1 524	34.6
Transportation				
Services	3 125	2 754	371	13.5
TOTAL EXPORT				
DELIVERIES	9 056	7 161	1 895	26.5
TOTAL DOMESTIC &				
EXPORT DELIVERIES	34 038	31 303	2 735	8.7

The Board notes that TCPL's record in forecasting domestic throughput during the past two test years has been within acceptable levels of forecasting error.

Based on the evidence, the Board is of the opinion that TCPL's forecast of domestic sales and transportation service volumes for the test year is reasonable.

#### 5.1.1.2 Export Sales and Transportation Service Volumes

Because the Applicant was unable to quantify the impact of weather on takes by its customers in the United States, the export volumes for 1983/84 shown in Table 5-1 are not weather-adjusted.

TCPL's forecast of export sales indicated an increase in the test year of 34.6 percent. Sales to Midwestern Gas Transmission Company (Midwestern), Great Lakes and ANR Pipeline Company (ANR) accounted for 84 percent of this increase, with the remaining increase attributable to the start-up of the new Boundary Gas sales contract. Transportation for others was estimated by TCPL to increase by 13.5 percent in the test year. Consolidated's exports accounted for the majority of this increase.

TCPL's forecast of export throughput in the test year is based on the assumption that export customers would be operating at a 75 percent load factor commencing 1 November 1984. The witness for the Applicant stated that this 75 percent assumption represented a reasonable halfway point between a 50 percent take under current pricing and contract conditions and a 100 percent take under market-oriented pricing. TCPL's basic assumption underlying the export forecast was that the existing Volume Related Incentive Price (VRIP) program would be extended for one more year beyond the expiry date of 31 October 1984, with a further price incentive. Other factors that were considered by TCPL in support of the increases were the new 50 percent take-and-pay contract amendments with Midwestern, Great Lakes and ANR, a return to normal weather from the warmer than normal weather in the base year and continued economic improvement in the United States.

Although price was the most significant factor underlying TCPL's export throughput forecast, the Applicant's witness, during cross-examination, indicated that he had made no quantitative pricing assumption. In addition, the witness could not provide the alternative prices of gas from indigenous United States sources, which its export customers could purchase. The witness could not quantify the effect of other assumptions concerning the United States economy and the weather effect on the Applicant's export throughput forecast. The evidence also indicated that TCPL had changed the export customers' and the transportation service customers' forecasts without knowing the basis on which the customers' forecasts had been developed.

Several intervenors expressed concerns about the accuracy of TCPL's export forecasts for the test year. These concerns centred on the current uncertainties in the export market and the associated difficulties of anticipating the likely level of throughput. These intervenors also noted that TCPL's forecasts of the export market during the past two test years have been overly optimistic and, as a consequence, have resulted in revenues being collected by TCPL that were substantially greater than the actual compressor fuel costs. Several intervenors urged the Board to carefully consider TCPL's forecasts of exports for the test year so that this type of estimating error will not re-occur.

Based on the foregoing, Ontario, Union, Dome, N&C, Consumers' and CPA have recommended a continuation of the compressor fuel deferral account for the test year. Ontario, Dome, N&C and Consumers' also submitted that, without this compressor fuel deferral account, TCPL has an incentive to err on the high side when estimating throughput and would be subject to a disincentive to sell additional gas. Alternatively, a deferral account would encourage incremental sales.

CPA was highly critical of the export throughput forecast submitted by TCPL for the test year and argued that the throughput projection should be viewed as wildly optimistic and that such optimism causes inflation in tolls. CPA also stated that the evidence indicates that the Applicant's forecast was based on a lack of information and can be characterized as a "guess".

Therefore, CPA concluded that TCPL's forecast is both unreliable and inappropriate and, consequently, the throughput forecast approved by the Board should be significantly less than that proposed by TCPL. In argument, CPA stated that the Applicant should be encouraged to make a realistic forecast.

No intervenor provided the Board with an alternative throughput forecast. Dome submitted, however, that the Board should use the take-and-pay levels currently in effect in the export contracts for the purpose of determining fuel costs.

The Board recognizes that there is considerable uncertainty with respect to the current gas bubble, natural gas prices and policies in the United States. In addition, the Canadian uniform border price is currently under review. The Board is also cognizant that market conditions will dictate throughput and that market conditions, which cannot be predicted with reasonable accuracy in times of uncertainty, are beyond the Applicant's control. All of these factors will have an impact on TCPL's ability to accurately forecast the short-term export market for Canadian gas.

The Board is of the opinion that the evidence does not support the Applicant's sales expectations in the export market for the test year.

In light of the current uncertainties in the export market and having regard to historical performance, the Board is concerned about the accuracy of TCPL's test year export throughput forecast for toll-making purposes. The Board notes that the Applicant has substantially over-forecast export volumes in the 1982/83 and 1983/84 test years, which have resulted in significant over-collections of compressor fuel costs in the cost of service. As an explanation for these over-forecasts, TCPL stated that because it is not the major supplier of the export market and because United States supplies are lower priced, the level of forecasting error could be expected to be greater for the export market.

It is the Board's view that the colder than normal weather experienced this past winter in the United States has resulted in higher export sales for TCPL than would have occurred under normal weather conditions. Because the export throughput forecast for the 1984/85 test year assumes normal weather and TCPL's updated forecast for the 1983/84 test year is based on 8 months of actual data through to 31 March 1984, the comparison of the export deliveries shown in Table 5-1 for those years is misleading. Furthermore, the Board disagrees with TCPL's assumption that a return to normal weather in the test year supports the indicated increases and levels of export volumes shown in Table 5-1.

The Board is also concerned with the Applicant's test year assumption that, commencing 1 November 1984, the export customers would be operating at a 75 percent load factor, which was derived on the basis that this represented the midpoint between a 50 percent take under current pricing and contract conditions and a 100 percent take under market-oriented pricing. The Board is not convinced that the export market would be operating at a 100 percent load factor under a market-oriented pricing scenario.

Based on current contractual commitments, historical performance and current sales trends, the Board thinks it is more likely that, under existing circumstances, exports levels at Emerson, Manitoba will remain at present levels. Accordingly, the Board has adjusted the throughput forecast at Emerson downward by 1 455 million cubic metres in accordance with its conclusions and has used the adjusted export forecast shown in Appendix VI to calculate TCPL's tolls for the test year. The Board's adjustments assume that the 50 percent take-and-pay minimum will be met for Midwestern, Great Lakes and Consolidated. All other export and domestic deliveries for toll purposes remain unchanged.

In view of the current uncertainties in the export market and the inherent difficulties in predicting the throughput volumes and compressor fuel costs, the Board has approved on an interim basis the continuation of the compressor fuel deferral account through the test year (see Section 4.3.2.2). Notwithstanding these uncertainties and difficulties, the Board

believes that throughput forecasts must reflect as accurately as possible a thorough assessment of market conditions, taking into account all relevant factors at the time the forecast is made.

#### 5.1.2 AOI Tolls

In its revised application, the Applicant proposed winter and summer season AOI tolls designed to recover the incremental costs of providing the service during the test year. The proposed AOI toll design is consistent with that established by the Board in its June 1983 TCPL Reasons for Decision except for AOI sales off the Trans Québec & Maritimes Pipeline Inc. (TQM) system. With respect to AOI sales off the TQM system, TCPL proposed that the Eastern Zone incremental tolls apply, rather than the current practice of charging the higher of the incremental toll or the subsidized CD toll at 100 percent load factor (CD-100).

For the Eastern Zone, the winter AOI toll proposed by the Applicant is marginally higher than the subsidized CD-100 toll that applies on the TQM system, while the proposed summer AOI toll is lower than the subsidized CD-100 toll.

In support of its proposal, TCPL stated that this toll design would provide all customers the same opportunity to market interruptible gas. In addition, TCPL contended that the proposed AOI tolls would promote gas sales. TCPL did not express any concern that, if the incremental AOI toll were lower than the subsidized CD-100 toll, the affected customers might rely on AOI instead of contracting for additional firm gas during the test year. The Applicant was of the opinion that, given GMI and GICQ's current gas surplus position, the potential for higher contracted demands was low.

GICQ and GMI supported TCPL's proposal for a uniform AOI toll for the TCPL and TQM pipeline systems in the Eastern Zone. GMI submitted, however, that the AOI toll should be the lesser of the CD-100 toll or the incremental toll. Both companies indicated that their contractual requirements for firm gas supply are currently adequate and that lower AOI tolls would assist in increasing gas sales in the very competitive industrial interruptible market.

Where developmental prices are in effect, AOI tolls are currently based on the higher of the incremental cost or the subsidized CD-100 toll. The objective has been to encourage firm gas sales in new markets in Quebec during the development period.

Based on the evidence, it appears that the customers concerned have sufficient gas supplies at present to meet their market requirements during the test year. In the case where the distributor's gas supply has been fully contracted, the Board is of the view that the distributor is unlikely to rely on AOI service instead of additional firm service. In these circumstances, the Board believes that for the test year the AOI toll differentials off the TCPL and TQM pipeline systems need not be continued. Therefore, the Board accepts TCPL's proposal to set winter and summer AOI tolls for each zone in the test year, based on the incremental cost of providing the service.

#### 5.1.3      ACQ Tolls

In its calculation of the ACQ toll differential, TCPL used the methodology approved by the Board in its June 1983 TCPL Reasons for Decision.

N&C argued that a change in the calculation of the ACQ toll differential is required. In their view, the ACQ deferral arrangements of last spring (see Section 5.2.1), with the proposed reduction of the supplemental charge as provided in Section 4.2 of the ACQ-E Rate Schedule (see Section 5.2.1.1), result in a change in the characteristic of ACQ Service. N&C did not provide a specific proposal as to how the differential should be amended, requesting only that the changed conditions of service be reflected in some way.

Both Union and Consumers' argued that the ACQ toll differential is unaffected by the ACQ deferral arrangements of last spring or by any reduction in the supplemental charge. They noted that the differential is intended to reflect the cost to TCPL of converting ACQ Service to CD Service, and as such has nothing to do with a cost recovery mechanism for costs that TCPL might not recover which is, in their view, the purpose of a supplemental charge.

of having considered the evidence, the Board is not convinced that any change to the calculation of the ACQ differential is required at this time. In the event of repetition of the 1982/83 ACQ deferral arrangements, however, the Board notes that a review of the current rationale and calculation of the ACQ toll differential may be warranted.

#### 5.2 Tariff Matters

The principal issue considered at the hearing was the Applicant's proposal to amend its T-Toll Schedule to allow it to require financial assurances that a potential T-Service shipper be able to fulfill its obligations during the term of the contract.

The Board has decided to deny the proposed amendment as explained in Section 5.2.2.1.

A number of other tariff matters were also raised at the hearing.

##### 5.2.1 ACQ Service

By letter dated 13 March 1984, the Board approved amendments to TCPL's ACQ-E Rate Schedule, as required by the reclassification between CD Service and ACQ Service of gas delivered by TCPL and taken by Consumers' and Union during the 1982/83 contract year. The amendments to the ACQ tariff included the right of ACQ customers to make up the ACQ deficiency over a specified recovery period.

By the same letter, the Board directed the Company to address the following two issues at the toll hearing pursuant to Board Order RH-1-84:

- (1) the continuing appropriateness of the supplemental charge provided in Section 4.2 of the ACQ-E Rate Schedule, and
- (2) as a matter of general practice, the appropriateness of tariff provisions for the right to make up volume deficiencies incurred under firm service contracts.

5.2.1.1 Proposed Amendment to the Calculation of the Supplemental Charge Provided in Section 4.2 of the ACQ-E Rate Schedule

The supplemental charge is a charge which an ACQ buyer must pay in the event that less gas is taken than is provided for in the full annual contract quantity. Section 4.2 of the existing ACQ-E Rate Schedule defines the calculation of the supplemental charge as the sum of the applicable weighted average ACQ-E transportation commodity toll and the applicable weighted average ABP Price. TCPL has requested a change in this calculation, in response to the Board's direction noted in Section 5.2.1.

The Applicant proposed to calculate the supplemental charge on the basis of the fixed cost-related portion of the ACQ-E transportation toll, where this fixed portion is defined as the difference between the weighted average ACQ-E transportation toll and the weighted average Eastern Zone transportation commodity toll. In support of its proposal, TCPL noted that the existing supplemental charge is inappropriate because no variable costs are incurred by TCPL in respect of those volumes subject to the supplemental charge (supplemental charge volumes). TCPL neither purchases nor delivers these volumes, which in fact represent ACQ service not taken.

One intervenor expressed his concern that TCPL's proposal, which effectively reduces the supplemental charge, may result in a reduction of financial incentive to distributors to take their full contracted quantities of gas.

Both Union and Consumers' supported the Applicant's proposal. They noted that a reduction in the supplemental charge does not relieve an ACQ buyer from the contractual obligation to take or pay for 100 percent of the annual contract quantity and, further, the charge is intended to recover only those costs actually incurred by TCPL for ACQ volumes not taken.

Having considered the evidence, the Board accepts TCPL's proposed amendment to the calculation of the supplemental charge provided in Section 4.2 of the ACQ-E Rate Schedule, which reads as follows:

"4.2 Each contract year Buyer shall pay Seller a supplemental charge equal to the sum of the Supplemental Charge Volumes for each day of such year calculated pursuant to Section 4.1 hereof multiplied by an amount determined by subtracting the weighted average CD-E Transportation Commodity Toll specified in Seller's CD Toll Schedule for such year from the weighted average ACQ-E Transportation Commodity Toll specified in Seller's ACQ-E Toll Schedule for such year. For each contract year the "weighted average" of a toll shall be the sum of the products obtained by multiplying each of the Supplemental Charge Volumes for each day by such toll in effect on such day, divided by the sum of the Supplemental Charge Volumes of such year. Such supplemental charge shall be due and payable at the same time as the regular monthly bill for the last month of such contract year."

5.2.1.2 General Tariff Provisions for Right of Make-Up Under Firm Service Contracts

The Applicant proposed that there be no general tariff provisions for the right to make up volume deficiencies incurred under firm service contracts beyond those currently in existence. In TCPL's view, the right to make up volume deficiencies without the usual take-or-pay obligations could remove the incentive for distributors to restrict their daily contract quantities under long-term contracts. This could result in the inefficient use of facilities and could hamper TCPL's ability to make interruptible sales.

The Board notes that, in the past, it has been flexible in allowing deferral arrangements and right of make-up for PS, TWS and ACQ deficiencies. These decisions were based, in part, on the fact that other tollpayers would not be affected by the arrangements.

It is the Board's decision to continue to review deferral arrangements with the possible right of make-up on a case by case basis. There is, at this time, no evidence to support any general tariff provisions for right of make-up under firm service contracts.

5.2.2      T-Service

5.2.2.1    TCPL's Proposal to Amend Section 1.1 of the T-Toll Schedule

Section 1.1 of TCPL's T-Toll Schedule governs the availability of T-Service. The Applicant proposed that paragraph 1.1(d) of that section be renumbered as paragraph (e), and that a new condition of availability of T-Service be inserted as follows:

"(d) which has provided adequate assurances that Shipper will be able to financially fulfill its obligations during the term of the contract;"

In support of this proposed amendment, TCPL referred to the increased availability of T-Service and, in particular, the availability of that service to individual customers resulting from the insertion into the NEB Act in 1982 of subsection 59(2). TCPL argued that a single T-Service customer represents a significantly different and greater risk over the 15-year minimum term of a T-Service contract than the regulated gas distributors that are the traditional customers for this service. Because provision of T-Service could involve the installation of new capacity, TCPL argued that other users of the system must be protected against having to bear the cost of vacated capacity in the event of failure of an industrial customer.

TCPL argued that the requirement of financial assurances is a common practice among public utilities and is a prudent business practice. TCPL urged the need for such a tariff amendment because of its concern that, should such a requirement not be included in the tariff, TCPL would be obliged to provide the service to a customer who met the conditions of availability set by the tariff regardless of the creditworthiness of the customer. TCPL gave assurances that the standards of creditworthiness it would impose would not be more stringent than those applied by credit agencies.

Several intervenors opposed the proposed amendment. They argued that an industrial end-user does not necessarily present a greater risk than some of TCPL's existing domestic and export customers. Some intervenors took

the position that an amendment such as this is not a proper matter to be included in a tariff, but is more properly a matter of contract between TCPL and a prospective customer. Intervenors contended that the amendment would be unjustly discriminatory:

- (a) as between types of service, because TCPL had not requested a similar provision for other firm services; and
- (b) among prospective customers, because TCPL could set different terms of creditworthiness for different shippers without approval by the Board.

The language of the proposed amendment was challenged as being too broad, allowing TCPL too much discretion as to the credit terms to be imposed. In this connection, intervenors argued that TCPL is in a conflict of interest position as a seller of gas under its CD Service, and is currently subject to large take-or-pay obligations.

Finally, it was argued that TCPL had provided no evidence of similar tariff provisions existing in the tariffs of other Canadian pipeline companies.

In the Board's view, it is normal business practice for TCPL to assess the financial capability of a potential T-Service shipper and, when appropriate, to require reasonable security for the payment of demand charges. The Board is not convinced, however, that TCPL requires authority in its tariffs to carry out credit assessments or to require security. The NEB Act and the tariff itself clearly contemplate that a contract will be entered into between TCPL and a shipper, and reasonable security for fulfillment of contractual obligations is a normal part of entering into such contracts. TCPL presented no legal authority to support the proposition that a tariff provision is required in order to authorize such practices, nor did it present evidence of any instance in which a public utility had been prevented by the lack of a tariff provision from imposing a reasonable security requirement. The proposed amendment is therefore denied.

The Board notes that a potential shipper who is refused a T-Service contract by TCPL can apply to the Board for consideration of the matter under subsection 59(2) of the NEB Act.

5.2.2.2 Consolidated's Proposal to Amend Subsection 3.2(a)  
of the T-Toll Schedule

Consolidated proposed that the following sentence be deleted from subsection 3.2(a) of TCPL's T-Toll Schedule:

"The said demand charge is payable notwithstanding any failure by shipper during such month, for any reason whatsoever, including force majeure, to deliver or cause to be delivered any portion of the gas to be delivered to TCPL at the point of interconnection."

In Consolidated's view, this sentence is unduly restrictive, imposing an unusual burden on the shipper. Force majeure is a common basis for relief from contractual obligations and should, according to Consolidated, be extended to relieve a shipper from demand charges under the T-Service tariff. Consolidated noted that TCPL's T-Service and CD Service tariffs are inconsistent in that the same provision is not contained in the comparable section of the CD tariff, even though the same considerations would seem to apply to both services.

According to Consolidated, the effect of this sentence in subsection 3.2(a) is to make TCPL's risks on CD Service greater than its risks on T-Service. If the T-Service tariff is not changed according to their proposal, Consolidated believes that the T-Service toll should be made lower than the CD toll to reflect the lower risk in providing T-Service relative to CD.

In the Applicant's view, the current text of 3.2(a) should be retained in its entirety if TCPL's risks in respect of T-Service and CD Service are to be comparable.

TCPL noted that in the event of force majeure of upstream gas supply (e.g., NOVA), the CD and T-Service tariffs are consistent in that, under either tariff, the party responsible for providing gas supply is also responsible for paying demand charges.

In addition, in the event of downstream force majeure on an industrial end-user's system, TCPL argued that its risks are the same under the existing tariffs whether industrial end-users are served with gas purchased from distributors supplied under CD contracts with TCPL, or if they are served with their own gas transported by TCPL under a T-Service contract. TCPL does not bear the loss in either case.

The Applicant also noted that no party has previously contested this sentence in subsection 3.2(a), in effect since 1974, with an analogous clause in existence in the Company's transportation contract with Consolidated since 1971.

Having carefully considered the evidence, the Board is not convinced that it would be appropriate to delete the above-quoted sentence from subsection 3.2(a) of TCPL's T-Toll schedule.

The Board recognizes that force majeure is a common basis for relief from contractual obligations. The Board believes, however, it is fairer to require that the party owning the gas being transported by TCPL be responsible for demand charges in the event of force majeure of that supply. In this important regard, the CD and T-Service tariffs are consistent.

In the Board's view, there was insufficient evidence to substantiate inconsistency or unjust discrimination between the CD and T-Service tariffs from any other perspective. The Board accordingly directs that the entire text of subsection 3.2(a) of TCPL's T-Toll schedule be retained.

#### 5.2.2.3 Other T-Service Matters

In argument, C-I-L requested several changes to the wording of paragraphs (a) and (d) of Section 1.1 of the T-Toll Schedule. The Board is not satisfied that the need for these amendments has been established. Furthermore, the Board does not feel that all of the implications of the amendments have been explored in this hearing. Issues of this magnitude should have been the subject of notice prior to the hearing, in order that all parties interested might have had the opportunity to present their views.

5.2.3      Sales Meter Station Charges

The Applicant proposed an amendment to the formula in subsection IV-2 of the General Terms and Conditions of its tariff. This formula provides a basis for computing sales meter station charges applicable to delivery points where the annual volume delivered is below 2 500 000 cubic metres. The Applicant requested a reduction in the trigger volume in the charge formula from its present level of 2 500 000 cubic metres to 1 250 000 cubic metres.

TCPL noted that the present level of the charge adversely affects the attachment of communities previously uneconomic to serve, but now feasibly served given Canada's off-oil commitment, the federal government's grant programs for gas distributors, and the aggressive marketing efforts by the gas industry in general. Modification of the trigger volume is, in TCPL's view, the most appropriate method for reducing the charge.

No intervenor opposed TCPL's proposal in respect of this matter. A witness for N&C submitted evidence supporting the Applicant's proposal.

Having considered the evidence, the Board recognizes the opportunity for increasing gas sales and, consequently, directs TCPL to amend the trigger volume in the formula in subsection IV-2 of the General Terms and Conditions from 2 500 000 cubic metres to 1 250 000 cubic metres. The Board has used \$37,000 for the revenue from sales meter station charges as a credit in the cost of service for the test year.

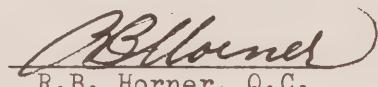
5.2.4      General Gas Tariff Amendment

The Applicant proposed that each sheet of its gas tariff rate schedules and General Terms and Conditions (except sheets 3, 5 through 13, and 18 of the General Terms and Conditions) be revised to substitute the word "toll" for the word "rate" where appropriate.

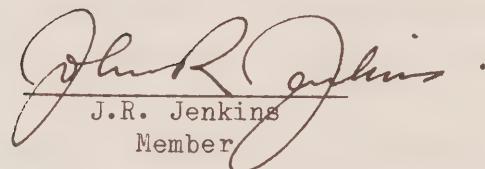
The Board approves the requested change in wording.

CHAPTER 6  
DISPOSITION

Order Nos. TG-5-84 and TG-6-84, which are shown as Appendices II and III respectively, are predicated upon these Reasons for Decision. The foregoing chapters, together with the above Orders, constitute our Reasons for Decision and our Decision on the application by TransCanada PipeLines Limited pursuant to Part IV of the NEB Act.



R.B. Horner, Q.C.  
Presiding Member



J.R. Jenkins  
Member



W.G. Stewart  
Member

Ottawa, Canada  
3 July 1984

NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. RH-1-84

IN THE MATTER OF the National Energy Board Act  
and the Regulations made thereunder; and

IN THE MATTER OF an application by TransCanada  
PipeLines Limited (hereinafter called  
TransCanada) for certain orders respecting  
tolls under Sections 50, 51 and 53 of the  
National Energy Board Act, filed with the  
Board under File No. 1562-T1-18.

B E F O R E the Board on 20 February 1984.

UPON reading the application dated 24 January 1984 filed  
by TransCanada for tolls effective 1 August 1984;

AND UPON the Board by a telex dated 22 April 1983 having  
directed TransCanada to file with the Board a complete  
depreciation study;

AND UPON TransCanada having filed a depreciation study  
under cover of its letter dated 29 December 1983 in compliance  
with the Board's telex;

AND UPON the Board being of the opinion that it is  
appropriate to review the depreciation rates included in  
TransCanada's cost of service at this time, excluding the proposed  
Allowance for Negative Salvage Value which the Board will consider  
at a later date;

AND UPON the Board, by its Order TGI-2-83 dated  
31 October 1983, having ordered TransCanada to record in a  
deferral account the difference between the revenues received by  
TransCanada as a result of transporting certain additional  
T-Service volumes and the actual cost of transporting those  
volumes;

AND UPON the Board, by its Order TG1-1-83 dated 13 October 1983, as amended by Order No. A0-1-TG1-1-83 dated 21 December 1983, having ordered TransCanada to record in a deferral account the difference between the actual cost of compressor fuel incurred in each month and the amount in respect of compressor fuel cost that is recovered by TransCanada in its tolls for the month;

IT IS ORDERED THAT:

1. The application of 24 January 1984 will be heard by the Board at a public hearing commencing at 1:30 p.m. on Monday, 16 April 1984 in the Hearing Room, Trebla Building, 473 Albert Street, Ottawa, Ontario.
2. Together with other issues raised by the application, the following issues will be addressed in the hearing:
  - (a) The depreciation rates charged by TransCanada, excluding the Allowance for Negative Salvage Value;
  - (b) The disposition of the balance recorded in the deferral account related to T-Service;
  - (c) The disposition of the balance recorded in Compressor Fuel Deferral Account;
3. The proceedings will be conducted in either official language and simultaneous interpretation will be provided should any party to the proceedings request such service in his intervention.

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4. TransCanada shall arrange to have the Notice of hearing, as set out in Appendix I to this Order, published by 28 February 1984, or as soon thereafter as possible, in one issue of "The Herald" in Calgary and "The Journal" and "Le Franco-Albertain" in Edmonton, Alberta; "The Leader-Post" and "L'eau-Vive" in Regina, Saskatchewan; "The Winnipeg Free Press" and "La Liberté" in Winnipeg, Manitoba; "The Globe and Mail", "Toronto Star", "The Financial Post" and "Le Toronto Express" in Toronto, "The Citizen" and "Le Droit" in Ottawa, Ontario; "The Gazette", "Le Devoir", "La Presse" and "Financial Times of Canada" in Montreal and "Le Soleil" and "Journal de Québec" in Quebec City, Quebec; and as soon as possible in the Canada Gazette.

5. TransCanada shall, as soon as possible, serve a copy of:

- (a) the application;
- (b) the depreciation study filed under cover of the letter dated 29 December 1983, and a copy of the Board's information request letter dated 24 January 1984, and TransCanada's response thereto dated 15 February 1984;
- (c) Orders TCI-1-83, AO-1-TGI-1-83, TGI-2-83, and this Order on each party listed in Appendix II to this Order and, as soon as possible, on those parties who have intervened pursuant to paragraph 6.

.../4

6. Any person intending to intervene in the hearing shall file with the Secretary of the Board, on or before 19 March 1984, thirty (30) copies of a written intervention, in either of the two official languages, containing his submission.

This submission

- (a) shall contain a concise statement of the facts from which the nature of the intervenor's interest in the proceedings may be determined;
- (b) shall be endorsed with the name and address of the intervenor or his solicitor to whom communications may be sent; and
- (c) shall state the official language in which the intervenor wishes to be heard.

7. Any intervenor shall serve forthwith three (3) copies of his intervention and supporting material upon TransCanada and one (1) copy upon each other party who has intervened pursuant to paragraph 6. A list of the intervenors will be distributed by the Board.

8. Any party who files a written intervention after 19 March 1984 must file and serve a notice of motion requesting leave to submit a late intervention. Such notice must be filed and served in accordance with paragraph 14.

9. TransCanada shall prepare its direct evidence in written question and answer form with lines numbered for each of its witnesses and shall, on or before 12 March 1984,

- 5 -

(a) file thirty (30) copies with the Secretary of the Board, and

(b) serve one (1) copy upon all parties who have intervened pursuant to paragraph 6.

10. Any party who has intervened pursuant to paragraph 6 and who wishes to present direct evidence in the hearing, shall prepare written direct evidence, and shall, on or before 2 April 1984,

(a) file thirty (30) copies with the Secretary of the Board, and

(b) serve three (3) copies upon TransCanada and one (1) copy upon each other party who has intervened pursuant to paragraph 6.

11. TransCanada or any intervenor who files written direct evidence of any of its witnesses after the relevant dates specified in paragraphs 9 and 10, shall file and serve a notice of motion requesting leave to submit late written direct evidence. Such notice shall be filed and served in accordance with paragraph 14.

12. Where TransCanada or any party who has intervened pursuant to paragraph 6 wishes to obtain additional information from another party to these proceedings in respect of matters raised in filings made with the Board, such requests shall be made in writing. Thirty (30) copies of the request shall be filed with the Secretary of the Board and one (1) copy served on each party

.../6

to the proceeding. The party to whom the request is made shall, as soon as possible, either provide a written response to the request or refer the question to the Board under paragraph 14. Thirty (30) copies of the response, or of the reference made under paragraph 14, shall be filed with the Secretary of the Board and one copy served on each other party to the proceeding. Both the request and the response thereto shall be filed as exhibits at the hearing by the party responding.

13. TransCanada and any party who has filed a written intervention in accordance with paragraph 6 or a notice of motion in accordance with paragraph 14 shall file two copies of proof of service and two copies of the application, intervention, or notice of motion at or prior to the commencement of the hearing.

14. If any question arises upon which a decision of the Board may be required, thirty (30) copies of a notice of motion with respect thereto shall be filed with the Secretary of the Board and one (1) copy served upon each party to the proceeding, and the motion shall be heard by the Board in accordance with the procedure fixed by it.

15. The Rules and Procedures set out in Appendix III to this Order shall govern the conduct of the hearing.

16. During normal business hours any person may examine a copy of the application and all other material filed at:

- 7 -

Library,  
National Energy Board,  
9th Floor,  
473 Albert Street,  
Ottawa, Ontario  
K1A 0E5

or

National Energy Board  
4500 - 16th Avenue N.W.  
Calgary, Alberta  
T2B 0M6

or

TransCanada PipeLines Limited,  
P.O. Box 54,  
Commerce Court West,  
Toronto, Ontario  
M5L 1C2

NATIONAL ENERGY BOARD

*Dan Melzer*  
for G. Yorke Slader,  
Secretary

APPENDIX I TO  
ORDER NO. Rh-1-84

NATIONAL ENERGY BOARD  
NOTICE OF PUBLIC HEARING  
TRANSCANADA TOLLS APPLICATION

The National Energy Board will conduct a hearing into an application dated 24 January 1984 by TransCanada Pipelines Limited for orders under Part IV of the National Energy Board Act fixing the just and reasonable tolls to be charged by the Company for the transmission of natural gas.

The hearing will commence at 1:30 p.m. on Monday, 16 April 1984, in the Hearing Room, Trebla Building, 473 Albert Street, Ottawa, Ontario.

The hearing will be public and will be held to obtain the evidence and relevant views of interested parties, groups, organizations and companies on the application.

Any person intending to intervene must file his intervention with the Secretary of the Board by 19 March 1984. Such persons should write or telex the Secretary of the Board, as soon as possible, requesting a copy of Order Rh-1-84 (available in English or French) which sets out the procedure for intervening and the locations at which copies of the application may be examined.

For further information, telephone the Board's Information Services at (613) 593-6936.

G. Yorke Slader,  
Secretary,  
National Energy Board,  
473 Albert Street,  
Ottawa, Ontario.  
K1A 0E5

Telex No.: 053 3791

Dated at Ottawa, Canada

20 February 1984

APPENDIX II  
ORDER NO. RH-1-84

Attorney General for the  
Province of Alberta,  
227 Legislative Buildings,  
Edmonton, Alberta  
T5K 2B6

Mr. D.E. Alderson,  
President,  
Canadian Gas Association,  
55 Scarsdale Road,  
Don Mills, Ontario  
M5B 2R3

Attorney General for the  
Province of Saskatchewan,  
Legislative Buildings,  
Regina, Saskatchewan  
S4S 0B3

The Secretary,  
Canadian Petroleum Association,  
1500 - 633 - Sixth Avenue S.W.,  
Calgary, Alberta  
T2P 2Y5

Attorney General for the  
Province of Manitoba,  
104 Legislative Buildings,  
Winnipeg, Manitoba  
R3C 0V8

Manager, Regulatory Affairs,  
Independent Petroleum  
Association of Canada,  
700, 707-7th Avenue S.W.,  
Calgary, Alberta  
T2P 0Z2

Attorney General for the  
Province of Ontario,  
18 King Street East,  
Parliament Buildings,  
Toronto, Ontario  
M5C 1C5

Executive Secretary,  
Industrial Gas Users  
Association,  
170 Laurier Avenue W.,  
11th Floor,  
Ottawa, Ontario  
K1P 5V5

and

Mr. R.P. Smith,  
Senior Counsel,  
Legal Services,  
Ministry of Energy,  
56 Wellesley Street West,  
12th Floor,  
Toronto, Ontario  
M7A 2B7

Procureur général de la  
Province de Québec,  
Édifice Delta,  
1200 route de l'église,  
Ste-Foy, Québec  
G1R 4X7

and

Me Jean Giroux, avocat,  
Service juridique du Ministère  
de l'énergie et des Ressources,  
200B, chemin Ste-Foy,  
Québec City, Québec  
G1R 4X7

APPENDIX III TO  
ORDER NO. RH-1-84

RULES AND PROCEDURES

1. In these Rules, "Party" means TransCanada PipeLines Limited and any intervenor who has filed with the Secretary of the Board a written statement pursuant to paragraph 6 of Order No. RH-1-84.

2. At the Hearing the evidence will be heard in the following order:

- (1) Rate Ease;
- (2) Depreciation;
- (3) Cost of Service excluding Return;
- (4) Compressor Fuel Deferral Account;
- (5) T-Service Deferral Account;
- (6) Rate of Return;
- (7) Methods of reducing the impact of proposed Cost of Service increases including TransCanada's proposal to transfer a portion of Accumulated Deferred Income Taxes to reduce Cost of Service;
- (8) Tariff Matters, excluding those matters which the Board will consider in the TransCanada methodology hearing held under Board Order No. RH-2-84;

3. The Board shall hear all of the evidence on each of the items referred to in paragraph 2 of these Rules, item by item, and for that purpose the Board will hear first all of the evidence of TransCanada on all of the items and then will hear all of the evidence of each intervenor in turn.

4. Upon the completion of the evidence on all items referred to in paragraph 2 of these Rules, the Board shall hear the oral argument of all parties.
5. The order of appearances of parties and sequence of adducing evidence and conducting cross-examination will be announced by the Board on or before the opening of the Hearing.

NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. AO-1-RH-1-84

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by TransCanada PipeLines Limited (hereinafter called TransCanada) for certain orders respecting tolls under Sections 50, 51 and 53 of the National Energy Board Act, filed with the Board under File No. 1562-T1-18.

B E F O R E the Board on 7 March 1984.

UPON the Board by its Order No. RH-1-84 dated 20 February 1984 having fixed a time and place for a hearing to be held into the application by TransCanada dated 24 January 1984;

AND UPON TransCanada by Notice of Motion dated 27 February 1984 having requested that the Board alter the order of presentation of evidence as set out in Appendix III to the said Order;

AND UPON the Board finding it desirable to amend the date set out in paragraph 9 of the said Order for service by TransCanada of its direct evidence on intervenors;

IT IS ORDERED THAT:

1. Paragraph 9 of Order No. RH-1-84 is revoked and replaced by the following:

"9. TransCanada shall prepare its direct evidence in written question and answer form with lines numbered for each of its witnesses and shall,

(a) on or before 12 March 1984 file thirty (30) copies with the Secretary of the Board, and

. . . /2

(b) as soon as possible thereafter, serve one (1) copy upon all parties who have intervened pursuant to paragraph 6."

2. Paragraph 2 of Appendix III to the said Order is revoked and replaced by the following:

"2. At the Hearing the evidence will be heard in the following order:

- (1) Income Tax Matters and methods of reducing the impact of proposed Cost of Service Increases including TransCanada's proposal to transfer a portion of Accumulated Deferred Income Taxes to reduce Cost of Service;
- (2) Rate Base;
- (3) Depreciation;
- (4) Cost of Service excluding Return;
- (5) Compressor Fuel Deferral Account;
- (6) T-Service Deferral Account;
- (7) Rate of Return;
- (8) Tariff Matters, excluding those matters which the Board will consider in the TransCanada methodology hearing to be held under Board Order No. RH-2-84."

- 3 -

3. TransCanada shall as soon as possible serve one (1) copy of this Order on each party listed in Appendix II to Order RH-1-84 and on all parties who have intervened pursuant to paragraph 6.

NATIONAL ENERGY BOARD

*Dan Meier*

for G. Yorke Slader,  
Secretary

NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

Order No. AO-2-RH-1-84

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by TransCanada Pipelines Limited (hereinafter called "TransCanada") for certain orders respecting tolls under Sections 50, 51 and 53 of the National Energy Board Act, filed with the Board under File No. 1562-T1-18.

B E F O R E the Board on 23 March 1984.

UPON the Board by its Order No. RH-1-84 dated 20 February 1984, as amended by Order No. AO-1-RH-1-84 dated 7 March 1984, having fixed a time and place for a hearing to be held into the application by TransCanada dated 24 January 1984;

AND UPON the Board by its letter dated 13 March 1984 having approved certain amendments to TransCanada's ACQ-E Rate Schedule requested by TransCanada in its application dated 13 January 1984, and having indicated the Board's intention to examine in the toll hearing the continuing appropriateness of the supplemental charge provided for in Section 4.2 of the ACQ-E Rate Schedule and, as a matter of general practice, the appropriateness of tariff provisions for the right of make-up of volume deficiencies incurred under firm service contracts;

AND UPON the Board by its letter dated 14 March 1984 having denied TransCanada's request made in its letter of 24 February 1984 for a ruling prior to the hearing as to the treatment for toll purposes of certain facilities presently before the Board for approval under section 49 of the Act that are proposed to be constructed to test "High Impact Welding" techniques;

AND UPON the Board deeming it desirable to amend the hearing  
Order to recognize these additional matters;

AND UPON the Board deeming it appropriate to require TransCanada  
to serve on intervenors an additional document pertaining to the  
continuing appropriateness of the depreciation rates currently included  
in TransCanada's Cost of Service;

IT IS ORDERED THAT:

1. Paragraph 2 of Order No. RH-1-84 is amended by adding  
immediately after subparagraph (c) thereof the following subparagraphs:

"(d) the continuing appropriateness of the inclusion in  
TransCanada's AOQ-E Rate Schedule of Section 4.2 thereof  
and the appropriateness in TransCanada's tariffs of  
provision for the right of make-up of volume deficiencies  
incurred by a purchaser under firm service contracts;  
(e) the appropriate treatment for toll purposes of the  
facilities applied for by TransCanada by its letter dated  
24 February 1984."

2. Paragraph 2 of Appendix III to the said Order, as amended by  
Order No. AO-1-RH-1-84, is revoked and replaced by the following:

"2. At the Hearing the evidence will be heard in the  
following order:

(1) Income Tax Matters and methods of reducing the impact  
of proposed Cost of Service increases including  
TransCanada's proposal to transfer a portion of  
Accumulated Deferred Income Taxes to reduce Cost of  
Service;

- (2) Rate Base;
- (3) The treatment for toll purposes of the facilities applied for by TransCanada in its letter of 24 February 1984;
- (4) Depreciation;
- (5) Cost of Service excluding Return;
- (6) Compressor Fuel Deferral Account;
- (7) T-Service Deferral Account;
- (8) Rate of Return;
- (9) Tariff Matters, including make-up provisions and section 4.2 of the ACQ-E Rate Schedule, but excluding those matters which the Board will consider in the TransCanada methodology hearing to be held under Board Order No. RH-2-84."

3. TransCanada shall as soon as possible serve one (1) copy of:

- (a) TransCanada's letter to the Board dated 13 January 1984 in regard to the ACQ-E Rate Schedule, and all of the attachments to that letter, and of the Board's letter to TransCanada of 13 March 1984 on the same subject,
- (b) TransCanada's Class "B" application to the Board dated 24 February 1984, and of the Board's letter to TransCanada dated 14 March 1984 on the same subject, and
- (c) the Stone & Webster depreciation study dated 31 December 1981

on each party listed in Appendix II to Order No. RH-1-84 and on all parties who have intervened pursuant to paragraph 6 thereof, who have not already received the document.

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4. TransCanada shall as soon as possible serve a copy of this Order on each party listed in Appendix II to Order No. RH-1-84 and on all parties who have intervened pursuant to paragraph 6 thereof.

NATIONAL ENERGY BOARD

G. Yorke Slader.

G. Yorke Slader,  
Secretary

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NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. TG-5-84

IN THE MATTER OF the National Energy Board Act  
and the Regulations made thereunder; and

IN THE MATTER OF an application by TransCanada  
PipeLines Limited (hereinafter called  
"TransCanada") for certain Orders respecting  
tolls under Sections 50, 51 and 53 of the  
National Energy Board Act, filed with  
the Board under File No. 1562-T1-18.

BEFORE:

R.B. Horner, Q.C. Presiding Member	)	
J.R. Jenkins Member	)	on Tuesday, the 3rd day of July 1984
W.G. Stewart Member	)	

WHEREAS an application dated 24 January 1984, as amended by an application dated 2 April 1984, has been made to the Board by TransCanada seeking, inter alia, orders under Sections 50, 51 and 53 of the National Energy Board Act fixing the just and reasonable tolls TransCanada may charge for or in respect of the transportation of gas sold by TransCanada, and for the transportation of gas owned by others, and disallowing any existing tolls or portions thereof that are inconsistent with the just and reasonable tolls so fixed, effective 1 August 1984;

AND WHEREAS the Board has heard the evidence and submissions of TransCanada and all interested parties with respect to the application at a public hearing held pursuant to Board Order No. RH-1-84, as amended by Orders AO-1-RH-1-84 and AO-2-RH-1-84, which commenced in Ottawa on 16 April 1984;

AND WHEREAS the Board's decisions in the application are set out in its Reasons for Decision dated July 1984, and in this Order;

- 2 -

IT IS ORDERED THAT:

1. TransCanada shall charge in respect of the transportation of gas sold by it and in respect of its T-Service and Transportation Services the tolls specified in Schedule "A" hereto.
2. TransCanada's proposal to renumber paragraph 1.1(d) of the T-Toll Schedule as paragraph (e), and to add a new paragraph 1.1(d) to the said Schedule, is denied.
3. TransCanada's proposal to amend its Tariffs to substitute the word "toll" for the word "rate" as set out in the tariff pages included in the revised application dated 2 April 1984, at Tab "Part V of Rules of Practice and Procedure", sub-tab 25, is approved.
4. TransCanada's proposed amendment to section 4.2 of the ACQ-E Toll Schedule, as set out in Section 5.2.1.1 of the Reasons for Decision dated July 1984, is approved.
5. TransCanada's proposal to amend subsection IV-2 of the General Terms and Conditions of the Tariff to substitute the volume "1 250 10<sup>3</sup> m<sup>3</sup>" for the volume "2 500 10<sup>3</sup> m<sup>3</sup>", as set out in the revised application dated 2 April 1984, at Tab "Part V of Rules of Practice and Procedure", sub-tab 25, page 64(a) of 71, is approved.

AND IT IS FURTHER ORDERED THAT:

6. TransCanada shall forthwith file with the Board and serve upon all parties to the hearing of this application new tariffs and tolls conforming with the decisions outlined in the Reasons for Decision dated July 1984, with Order No. TG-6-84, and with this Order.
7. Notwithstanding the filing of the new tariffs and tolls, the same shall remain suspended and be of no effect until 1 August 1984.

- 3 -

8. Those provisions of TransCanada's tariffs and tolls or any portion thereof that are contrary to any provision of the National Energy Board Act, to the Reasons for Decision dated July 1984, or to any Order of the Board including this Order, are hereby disallowed, effective 31 July 1984.

NATIONAL ENERGY BOARD



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G. Yorke Slader,  
Secretary

SCHEDULE 'A'

TransCanada PipeLines Limited  
Tolls for Canadian Sales, Transportation and T-Service

<u>Particulars</u>	<u>Schedule</u>	Transportation Demand Toll (\$/10 <sup>3</sup> m <sup>3</sup> /mo)	Transportation Commodity Toll (\$/10 <sup>3</sup> m <sup>3</sup> )
(a)	(b)	(c)	(d)
<u>SALES SERVICE</u>			
Saskatchewan Zone	CD	152.63	1.323
	AOI-W		4.828
	AOI-S		3.683
	PS		83.590
	TWS		38.410
Manitoba Zone	CD	266.83	2.458
	AOI-W		10.611
	AOI-S		8.309
	PS		83.590
	TWS		38.410
Western Zone	CD	439.33	4.193
	AOI-W		17.158
	AOI-S		17.038
	PS		83.590
	TWS		38.410
Northern Zone	CD	681.73	6.580
	AOI-NDA-W		29.161
	AOI-NDA-S		24.676
	AOI-SSMDA-W		22.561
	AOI-SSMDA-S		20.259
	PS		83.590
	TWS		43.700
Eastern Zone	CD	846.25	8.823
	AOI-W		34.525
	AOI-S		25.967
	ACQ		30.345
	PS		111.830
	TWS		45.470

T-SERVICE

Eastern Zone	846.25	8.823
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TRANSPORTATION SERVICE

Saskatchewan Power Corporation

Empress	122.16	0.957
Bayhurst & Liebenthal	112.25	0.854
Success	83.35	0.576
Herbert	24.04	0.090

Consolidated Natural Gas

Herbert	245.55	2.265
Empress	300.76	2.807
ProGas	300.76	2.807
Sulpetro	889.24	8.597



NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. TG-6-84

IN THE MATTER OF the National Energy Board Act  
and the Regulations made thereunder; and

IN THE MATTER OF an application by TransCanada  
PipeLines Limited (hereinafter called "TransCanada")  
for certain Orders respecting tolls under  
Sections 50, 51 and 53 of the National Energy  
Board Act, filed with the Board under File  
No. 1562-T1-18.

BEFORE:

R.B. Horner, Q.C. Presiding Member	)	
J.R. Jenkins Member	)	on Tuesday, the 3rd day of July, 1984.
W.G. Stewart Member	)	

WHEREAS an application dated 24 January 1984, as amended by an application dated 2 April 1984, has been made to the Board by TransCanada seeking, inter alia, orders under Sections 50, 51 and 53 of the National Energy Board Act fixing the just and reasonable tolls TransCanada may charge for or in respect of the transportation of gas sold by TransCanada, and for the transportation of gas owned by others, and disallowing any existing tolls or portions thereof that are inconsistent with the just and reasonable tolls so fixed, effective 1 August 1984;

AND WHEREAS TransCanada has requested that the Board, by Order, approve for accounting and toll-making purposes certain related procedures and modifications to procedures referred to in paragraphs 1 through 6 and 8 herein;

AND WHEREAS the Board has heard the evidence and submissions of TransCanada and all interested parties with respect to the application at a public hearing held pursuant to Board Order No. RH-1-84, as amended by Orders AO-1-RH-1-84 and AO-2-RH-1-84, which commenced in Ottawa on 16 April 1984;

AND WHEREAS the Board's decisions in the application are set out in its Reasons for Decision dated July 1984, and in this Order;

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AND WHEREAS the Board finds it just and reasonable to order for accounting and toll-making purposes that TransCanada follow certain additional procedures as ordered herein;

IT IS ORDERED THAT:

1. TransCanada's request for an order authorizing the transfer in the test year of \$14,400,000 from Account No. 276 Accumulated Deferred Income Taxes to Account No. 728 Other General Expense, is denied.
2. TransCanada's request for an order authorizing the recording in a deferral account of the difference between the actual cost of Lost and Unaccounted for Gas and the amount recovered in respect thereof in the tolls approved by the Board, together with carrying charges computed monthly at an annual interest rate equal to the authorized rate of return on rate base, is denied.
3. TransCanada's request for an order authorizing the recording in a deferral account, in respect of those items of gas-related costs not otherwise the subject of a deferral, the difference between the actual cost of those items and the cost in respect of such items actually recovered in tolls, together with carrying charges computed monthly at an annual interest rate equal to the prevailing authorized rate of return on rate base, and to amortize the balance including carrying charges thereon from time to time through adjustment of future tolls, is denied.
4. TransCanada shall, effective 1 August 1984, record in a deferral account each month for accounting and toll-making purposes any difference between the actual transportation costs incurred, and the transportation costs that would have been incurred based on the Alberta Border Price that was used in the calculation of the tolls in effect, together with carrying charges on the month-end balance in the account calculated at a rate equal to one-twelfth

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of the authorized annual rate of return on rate base, in respect of the following gas-related costs:

- (a) Heating Fuel,
- (b) Operating Uses,
- (c) Return on Line Pack,
- (d) Inventory Credit on Line Pack,
- (e) Inventory Allowance for Income Tax Purposes,
- (f) Lost and Unaccounted for Gas,
- (g) Miscellaneous Revenue,
- (h) Sale of Delivery Pressure,
- (i) Transportation Charges paid to Steelman Gas Limited,

and shall bring forward the balance in the account for disposition by the Board at the next toll proceeding.

5. TransCanada's request for a modification to all existing deferral accounts to authorize the deferral of variances between actual costs and costs recovered in tolls as approved by the Board, is denied.

6. TransCanada shall, effective 1 August 1984, record in a deferral account each month the difference between

- (a) the revenue received by TransCanada as a result of transporting gas under any CD or T-Service contract that has not been incorporated in the calculation of the tolls in effect, and
- (b) the cost of transporting such gas, which shall be equivalent to the commodity charge component of the revenue received by TransCanada as a result of transporting the said gas,

together with carrying charges on the month-end balance in the account calculated at the rate of one-twelfth of the authorized annual rate of return

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on rate base, and shall bring forward the balance in the account for disposition by the Board in the next toll proceeding.

AND IT IS FURTHER ORDERED THAT:

7.(1) TransCanada shall, for accounting and toll-making purposes,

- (a) record in the deferral account established under paragraph 6 of Order No. TG-5-83 amounts paid by it in respect of income tax reassessments by Revenue Canada for the years 1978 and 1979, together with carrying charges calculated on the month-end balance at a rate equal to one-twelfth of the authorized annual rate of return on rate base;
- (b) credit to the said account any refunds and interest thereon received from Revenue Canada of amounts paid in respect of the said reassessments;
- (c) bring forward the balance in the account for disposition by the Board when the dispute over the reassessments has been resolved.

(2) Sub-paragraph 8(iii) of Order No. TG-5-83 is revoked and replaced by the following:

"(iii) bring forward the balance in the said account for disposition by the Board when the dispute over the reassessments has been resolved".

AND IT IS FURTHER ORDERED THAT:

8. TransCanada shall continue, for the year commencing 1 August 1984, to record each month for accounting and toll-making purposes in accordance with Order No. TGI-1-83, as amended by Order No. AO-1-TGI-1-83, the difference between

- (a) the actual cost of compressor fuel used for the month, and
- (b) the amount for compressor fuel costs that is actually recovered by TransCanada in its tolls for the month,

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together with carrying charges on the month-end balance in the account calculated at the rate of one-twelfth of the authorized annual rate of return on rate base, and shall bring forward the balance in the account for disposition by the Board at the next toll proceeding.

9. TransCanada shall, effective 1 August 1984, record for accounting and toll-making purposes each month in a sub-account of the account established under Order No. TGI-1-83, as amended by Order No. AO-1-TGI-1-83, any difference between the actual cost of compressor fuel incurred in each month up to 31 July 1984 and the amount estimated for that month that is credited to the cost of service in accordance with Order No. TG-5-84 and the Reasons for Decision dated July 1984, together with carrying charges calculated at a rate equal to one-twelfth of the authorized annual rate of return on rate base, and shall bring forward the balance in the sub-account for disposition by the Board at the next toll proceeding.

10. TransCanada shall, effective 1 August 1984, record each month for accounting and toll-making purposes in a sub-account of the account established under Order No. TGI-1-83, as amended by Order No. AO-1-TGI-1-83, the difference between

- (a) the actual cost of compressor fuel used in the transportation of make-up ACQ volumes delivered to The Consumers' Gas Company Ltd. and Union Gas Limited in the month, and
- (b) the amount in respect of the cost of compressor fuel that is recovered by TransCanada in the tolls charged for the transportation of the make-up ACQ volumes delivered in the month,

together with carrying charges on the month-end balance in the account calculated at one-twelfth of the authorized annual rate of return on rate base, and shall bring forward the balance in the sub-account for disposition by the Board at the next toll proceeding.

AND IT IS FURTHER ORDERED THAT:

11. TransCanada shall, effective 1 August 1984, charge for accounting and toll-making purposes depreciation rates as follows:

<u>Account</u>	<u>NEB Account No.</u>	<u>Rate (%)</u>
Franchises and Consents	401	2.50
Other Intangible Plant	402	2.50
Land Rights	461	2.50
Mains	465	-2.50
Compressor Structures and Improvements	462	3.50
Compressor Equipment	466	3.50
Measuring and Regulating Structures and Improvements	463	3.50
Measuring and Regulating Equipment	467	3.50
Office Furniture and Equipment	483	7.00
Transportation Equipment - Autos	484	12.00
Transportation Equipment - Aircraft	484	6.00
Heavy Work Equipment	485	6.00
Tools and Work Equipment	486	7.00

TransCanada shall calculate and charge depreciation in respect of Account No. 482 Structures and Improvements (Leasehold), over the remaining life of the leases.

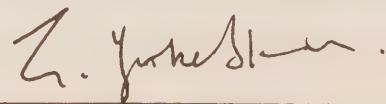
12. TransCanada shall, each month during the year commencing 1 August 1984, for accounting and toll-making purposes amortize to Account No. 304 Amortization one-twelfth of the balance at 31 July 1984 in Account No. 278 Contributions and Grants.

13. TransCanada shall, effective 1 August 1984, for accounting and toll-making purposes amortize any addition to Account No. 278 Contributions and Grants after that date to Account No. 304 Amortization proportionally at rates equal to the depreciation rates applicable to the assets in respect of which the contribution or grant was received.

AND IT IS FURTHER ORDERED THAT:

14. Order No. TGI-2-83 is revoked.

NATIONAL ENERGY BOARD



G. Yorke Slader,  
Secretary

WEIGHTED AVERAGE COST OF DEBT CAPITAL  
FOR THE TEST YEAR ENDING 31 JULY 1985  
(\$000's)

	Average Principal Outstanding (Gross Proceeds)	Net Proceeds (%)	Average Principal Outstanding (Net Proceeds)	Financial Charges	Cost Rate
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First Mortgage  
Pipe Line Bonds

5 5/8% due 1985 (U.S.)	1,965	99.01	1,946	128	
7 1/8% due 1987 (U.S.)	22,920	95.51	21,891	1,894	
9 1/4% Series A due 1992	40,044	98.20	39,323	3,704	
9 1/4% Series B due 1992	18,031	98.20	17,706	1,668	
8 7/8% Series A due 1993	29,372	97.46	28,626	2,607	
8 7/8% Series B due 1993	4,982	97.50	4,857	442	
16% due 1996 (U.S.)	460,967	99.28	457,648	76,382	
16 3/4% due 1997 (U.S.)	157,861	99.27	156,709	26,116	
16 1/2% due 2007 (Sterling)	54,708	96.53	52,810	7,920	
	<u>790,850</u>		<u>781,516</u>	<u>120,861</u>	<u>15.46%</u>

Sinking Fund Debentures

10% Series A due 1990	19,798	97.26	19,256	1,980	
9 3/4% Series B due 1990	24,113	95.37	22,997	2,351	
9% Series C due 1991	21,293	97.49	20,759	1,916	
8 7/8% Series D due 1992	46,829	97.84	45,818	4,156	
9% Series E due 1993	53,845	97.32	52,402	4,846	
11 1/2 % Series F due 1995	35,120	97.19	34,133	4,039	
9.60% Series G due 1997	53,995	97.92	52,872	5,184	
18% Series H due 1996	75,000	99.19	74,393	13,500	
	<u>329,993</u>		<u>322,630</u>	<u>37,972</u>	<u>11.77%</u>

Eurodollar Notes

17.75% Notes due 1988 (U.S.)	89,965	97.64	87,842	16,641	
16% Notes due 1989 (U.S.)	118,078	97.68	115,339	20,000	
16% Notes due 1992 (U.S.)	119,216	97.73	116,510	19,562	
	<u>327,259</u>		<u>319,691</u>	<u>56,203</u>	<u>17.58%</u>

Subordinated Debentures

5.85% due 1987	24,772	95.40	23,633	1,449	
5.60% due 1987 (U.S.)	9,915	95.38	9,457	722	
	<u>34,687</u>		<u>33,090</u>	<u>2,171</u>	<u>6.56%</u>
	<u>1,482,789</u>		<u>1,456,927</u>	<u>217,207</u>	

Amortization of Debt

Discount & Expense		2,684	
Gain on Sinking Fund			
Redemptions		(4,351)	
Bond Premium Adjustment		(304)	
Foreign Exchange Loss		2,457	

TOTAL FUNDED DEBT	<u>1,482,789</u>	<u>1,456,927</u>	<u>217,693</u>	<u>14.94%</u>
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Comparison of Components of Rate of Return  
Previously Authorized, Applied for and Approved

Previously Authorized		Applied For		Approved	
Capital Structure %	Cost Rate %	Cost Component %	Capital Structure %	Cost Component %	Capital Structure %
Cost Rate %	Cost Component %	Cost Rate %	Cost Component %	Cost Rate %	Cost Component \$
Funded Debt	14.36 12.50	8.25 .23	54.95 2.12	14.94 14.50	8.21 .31
Unfunded Debt					55.09 11.94
Total Debt Capital	59.32	8.48	57.07	8.52	57.03
Preferred Share Capital	12.68 28.00 <u>100.00</u>	10.44 15.00 <u>100.00</u>	1.32 4.20 <u>100.00</u>	10.54 16.50 <u>100.00</u>	1.36 4.95 <u>100.00</u>
Common Equity					12.97 30.00 <u>100.00</u>
Overall Rate of Return				<u>14.83</u>	<u>14.53</u>

APPROVED FORECAST OF TEST YEAR GAS EXPORT VOLUMES  
(10<sup>6</sup>m<sup>3</sup>)

	<u>Application as Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
<u>EXPORT SALES</u>			
<u>Western Exports</u>			
Inter-City	170	-	170
Midwestern	2 070	(394) <sup>(1)</sup>	1 676
Great Lakes	2 589	(878) <sup>(2)</sup>	1 711
ANR	517	-	517
Total	<u>5 346</u>	<u>(1 272)</u>	<u>4 074</u>
<u>Eastern Exports</u>			
Niagara Gas	210	-	210
Vermont Gas	145	-	145
Boundary Gas	230	-	230
Total	<u>585</u>	<u>-</u>	<u>585</u>
TOTAL EXPORT SALES	<u>5 931</u>	<u>(1 272)</u>	<u>4 659</u>
<u>TRANSPORTATION SERVICES</u>			
Consolidated			
Herbert	230	-	230
Empress	700	(183) <sup>(3)</sup>	517
ProGas	1 650	-	1 650
Sulpetro	545	-	545
TOTAL EXPORT TRANSPORTATION	<u>3 125</u>	<u>(183)</u>	<u>2 942</u>
TOTAL EXPORT SALES & TRANSPORTATION	<u>9 056</u>	<u>(1 455)</u>	<u>7 601</u>

(1) 50 percent of the "adjusted" authorized volume of 3 351 million cubic metres is assumed based on the following factors:

- Contract reduction of about 301 million cubic metres elected by Midwestern.
- Current sales trends for the test year 1983/84 filed by TCPL indicate sales will approximate 46 percent of the authorized licence volumes.
- Reduction of takes by ANR from Midwestern and maximization of takes by ANR from its own licences with TCPL and ProGas as a result of ANR's rationalization of its gas purchase contracts.
- Current performance under VRIP indicates that additional sales much beyond the 50 percent take-and-pay level of 1 533 million cubic metres are not likely to be achieved, in light of the high base quantity of 1 826 million cubic metres relative to the take-and-pay level.

(2) 50 percent of the authorized volume of 3 421 million cubic metres takes into consideration the following:

- Recent historical and current performance indicate sales of gas for resale and fuel approximate 50 percent of the authorized licence quantities.
- The majority of TCPL's forecast fuel volume is required for the transportation of the test year domestic deliveries via the Great Lakes system.
- The allocation of the VRIP base quantity currently in effect, by sub-groups of customers under each licence, provides potential for increased sales over and above the 50 percent take-and-pay levels.

(3) 50 percent of the authorized volume through Emerson, Manitoba of 1 037 million cubic metres is assumed based on the following considerations:

- The 50 percent annual take-and-pay quantity under the Amending Agreement dated 12 December 1983 between Consolidated and Northern Natural and the contract settlement of Prepaid Gas.
- Consolidated's revised forecast dated 17 April 1984 filed under Exhibit No. C-72.
- Current performance does not support TCPL's forecast level.

Functional Distribution and Classification of Authorized Cost of Service

	Total	Cost of Gas	Miscellaneous Transmission	Metering	Fixed	Fuel, Uses & Other	Variation Unaccounted for Losses	Transmission
Cost of Gas Sold	\$2,951,372,225	\$2,951,372,225						
Transmission by Others	165,312,705		\$249,352			\$98,695,457	\$ 66,367,896	
Operation and Maintenance	248,846,074			\$5,178,964		92,947,863	153,003,801	\$(2,284,554)
Depreciation	84,074,249				929,305		83,144,944	
Taxes Other Than Income Taxes	31,306,156				125,556		31,180,600	
Miscellaneous Deferred Items	6,018,375					6,018,375		
Income Taxes	126,733,618					1,080,937	125,652,681	
Reduction in Deferred Income Taxes	(5,706,815)						(90,720)	(5,616,095)
Other Operating Income	371,495,264					3,168,559	368,326,705	
Return @ 14.53%								
Total Cost of Service	\$3,979,451,851	\$2,951,372,225	\$249,352	10,483,321		\$805,875,905	\$213,755,602	\$(2,284,554)
Miscellaneous Revenue	(10,245,788)	(3,324,799)	(1,081)	(101,501)		(5,222,678)	(1,595,729)	0
Net Cost of Service	\$3,969,206,063	\$2,948,047,426	\$248,271	\$10,381,820		\$800,653,227	\$212,159,873	\$(2,284,554)





